

=> fil reg
FILE 'REGISTRY' ENTERED AT 10:13:42 ON 27 MAR 2009
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STRUCTURE FILE UPDATES: 25 MAR 2009 HIGHEST RN 1127021-37-7
DICTIONARY FILE UPDATES: 25 MAR 2009 HIGHEST RN 1127021-37-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

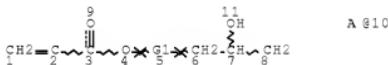
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
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experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

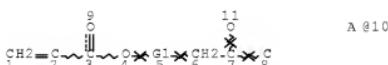
=> d que
L5 STR



REP G1=(0-20) 10
NODE ATTRIBUTES:
NSPEC IS RC AT 10
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L9 STR



REP G1=(0-20) 10
NODE ATTRIBUTES:

NSPEC IS RC AT 7
 NSPEC IS RC AT 8
 NSPEC IS RC AT 10
 NSPEC IS RC AT 11
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L11 SCR 2043
 L13 55359 SEA FILE=REGISTRY SSS FUL L9 AND L11
 L16 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
 L18 5040 SEA FILE=REGISTRY SUB=L13 SSS FUL (L5 AND L16)
 L20 STR



REP G1=(0-20) 10
 NODE ATTRIBUTES:
 NSPEC IS RC AT 10
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L22 6933 SEA FILE=REGISTRY SUB=L13 SSS FUL (L20 AND L16)
 L24 3345 SEA FILE=HCAPLUS ABB=ON PLU=ON L18
 L25 4885 SEA FILE=HCAPLUS ABB=ON PLU=ON L22
 L26 7907 SEA FILE=HCAPLUS ABB=ON PLU=ON (L24 OR L25)
 L28 4179 SEA FILE=HCAPLUS ABB=ON PLU=ON L26(L)PREP/RL
 L29 21466 SEA FILE=HCAPLUS ABB=ON PLU=ON "OPTICAL FILTERS"+PFT,NT/C

T

L30 225 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND L29
 L31 59 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND RACT/RL
 L32 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND CURABLE POLYMER
 COMPOUND?
 L33 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND METHACRYLATE
 ESTER?
 L34 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 AND CURABLE POLYMER?
 L35 65 SEA FILE=HCAPLUS ABB=ON PLU=ON (L31 OR L32 OR L33 OR
 L34)
 L36 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND (1840-2003)/PRY,AY
 ,PY
 L38 242 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND (COLOUR OR
 COLOR) (2A)FILTER?
 L39 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND MERCAPTO?
 L40 QUE ABB=ON PLU=ON METAL HALID? OR TERTIARY AMIN? OR PY
 RIDIN? OR PYRIDINIUM? OR QUATERNARY AMMONIUM? OR PHOSPHIN
 ? OR PHOSPHONIUM? OR IMIDAZOL? OR BENZYLTRIMETHYL? OR AMM
 ONIUM CHLORID?
 L41 1677 SEA FILE=HCAPLUS ABB=ON PLU=ON QYE BENZYLTRIETHYL
 AMMONIUM CHLORID? OR TETRABUTYLL AMMONIUM BROMID? OR
 TRIPHENYL PHOSPHIN? OR ETHYLTRIPHENYL PHOSPHONIUM BROMID?
 OR TETRAPHENYL PHOSPHONIUM BROMID? OR BENZYLTRIPHENYL
 PHOSPHONIUM? OR 2-METHYL IMIDAZOL?
 L42 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L36 AND (L40 OR L41)
 L43 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND (L40 OR L41)
 L44 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 OR L43
 L45 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L44 AND (1840-2003)/PRY,AY
 ,PY
 L46 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L36 OR L42 OR L45
 L47 33 SEA FILE=HCAPLUS ABB=ON PLU=ON L46 AND (COLOUR OR
 COLOR) (2A)FILTER?
 L48 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L46 OR L47
 L49 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 AND CATALYST?
 L50 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 OR L49

=> fil hcapp
 FILE 'HCAPLUS' ENTERED AT 10:13:48 ON 27 MAR 2009
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FILE COVERS 1907 - 27 Mar 2009 VOL 150 ISS 14
 FILE LAST UPDATED: 26 Mar 2009 (20090326/ED)

HCplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 150 1-35 ibib ed abs hitstr hitind

L50 ANSWER 1 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:451432 HCPLUS Full-text
 DOCUMENT NUMBER: 143:8522
 TITLE: Curable polymer
 compound containing methacrylate
 ester groups
 INVENTOR(S): Kamijo, Masanao; Onishi, Mina; Murofushi, Katsumi
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005047346	A1	20050526	WO 2004-JP16505	20041101
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BV, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1682589	A1	20060726	EP 2004-799528	20041101
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CN 1878798	A	20061213	CN 2004-80033362	20041101
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JP 2005163033	A	20050623	JP 2004-328725	20041112
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US 20070083012	A1	20070412	US 2006-579066	20060511
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KR 2006090717	A	20060814	KR 2006-709299	20060512
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PRIORITY APPLN. INFO.:			JP 2003-382759	A 20031112
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			US 2003-523309P	P 20031120
			<--	
			WO 2004-JP16505	W 20041101

ED Entered STN: 27 May 2005

AB There are provided a novel curable polymer compound of the present invention comprises having a structure represented: $\text{CH}_2=\text{C}(\text{R1})\text{COO}(\text{R20})\text{nCH}_2\text{CH}(\text{OH})\text{CH}_2\text{OC-}$ wherein R1 represents a hydrogen atom or a Me group, R2 independently has one or more organic residues selected from the group consisting of an alkylene group, a branched alkylene group, an alkynylene group, a branched alkenylene group, a cycloalkynylene group, a cycloalkenylene group and an arylene group, and n represents an integer of 0 to 1, a method of preparing the polymer compound, a radical polymerizable and curable composition using the polymer compound, and a cured product obtained by photo-curing the radical polymerizable and curable composition. A curable resin was prepared by reaction of glycidyl methacrylate and 4-hydroxybutylacrylate glycidyl ether with methacrylic acid-p-methylstyrene copolymer.

IT 852316-39-3P 852316-40-6P 852316-41-7P

(curable polymer compound containing
methacrylate ester groups)

RN 852316-39-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-ethenyl-4-methylbenzene,
2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl
2-hydroxy-3-[4-[(1-oxo-2-propenyl)oxy]butoxyl]propyl ester (9CI) (CA
INDEX NAME)

CM 1

CRN 251298-12-1

CMF C10 H18 O5



CM 2

CRN 5919-74-4

CMF C7 H12 O4



CM 3

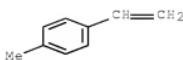
CRN 42248-78-2

CMF (C9 H10 . C4 H6 O2)x
CCI PMS

CM 4

CRN 622-97-9

CMF C9 H10



CM 5

CRN 79-41-4
CMF C4 H6 O2

RN 852316-40-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-ethenyl-4-methylbenzene,
2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxyl]propyl ester (9CI) (CA
INDEX NAME)

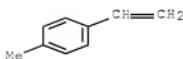
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CMF C7 H12 O4

CM 2

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CMF (C9 H10 . C4 H6 O2)x
CCI PMS

CM 3

CRN 622-97-9
CMF C9 H10

CM 4

CRN 79-41-4
 CMF C4 H6 O2



RN 852316-41-7 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with methyl
 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-
 propenyl)oxy]propyl 2-hydroxy-3-[4-[(1-oxo-2-
 propenyl)oxy]butoxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 251298-12-1
 CMF C10 H18 O5



CM 2

CRN 5919-74-4
 CMF C7 H12 O4



CM 3

CRN 25086-15-1
 CMF (C5 H8 O2 . C4 H6 O2)x
 CCI PMS

CM 4

CRN 80-62-6
 CMF C5 H8 O2



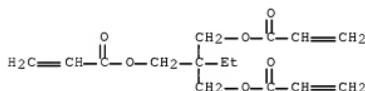
CM 5

CRN 79-41-4
CMF C4 H6 O2IT 852316-42-8P 852316-43-9P 852316-44-0P
(curable polymer compound containing
methacrylate ester groups)

RN 852316-42-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-ethenyl-4-methylbenzene,
2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl
2-hydroxy-3-[4-[(1-oxo-2-propenyl)oxy]butoxylpropyl ester, polymer
with 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
di-2-propenoate (9CI) (CA INDEX NAME)

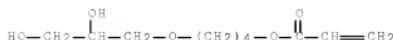
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CRN 15625-89-5
CMF C15 H20 O6

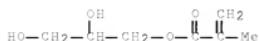
CM 2

CRN 852316-39-3
CMF C10 H18 O5 . x (C9 H10 . C4 H6 O2)x . x C7 H12 O4

CM 3

CRN 251298-12-1
CMF C10 H18 O5

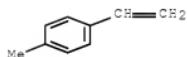
CM 4

CRN 5919-74-4
CMF C7 H12 O4

CM 5

CRN 42248-78-2
CMF (C9 H10 . C4 H6 O2)x
CCI PMS

CM 6

CRN 622-97-9
CMF C9 H10

CM 7

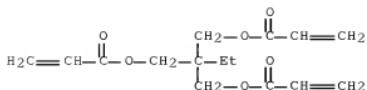
CRN 79-41-4
CMF C4 H6 O2

RN 852316-43-9 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1-ethenyl-4-methylbenzene,
2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with
2-ethyl-2-[[1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 852316-40-6

CMF (C9 H10 . C4 H6 O2)x . x C7 H12 O4

CM 3

CRN 5919-74-4

CMF C7 H12 O4



CM 4

CRN 42248-78-2

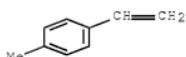
CMF (C9 H10 . C4 H6 O2)x

CCI PMS

CM 5

CRN 622-97-9

CMF C9 H10



CM 6

CRN 79-41-4

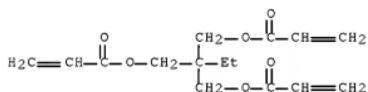
CMF C4 H6 O2



RN 852316-44-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with methyl
 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-
 propenyl)oxy]propyl 2-hydroxy-3-[4-[(1-oxo-2-
 propenyl)oxy]butoxylpropyl ester, polymer with
 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl-1,3-propanediyl
 di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5
 CMF C15 H20 O6



CM 2

CRN 852316-41-7
 CMF C10 H18 O5 . x C7 H12 O4 . x (C5 H8 O2 . C4 H6 O2)x

CM 3

CRN 251298-12-1
 CMF C10 H18 O5



CM 4

CRN 5919-74-4
 CMF C7 H12 O4



CM 5

CRN 25086-15-1

CMF (C₅ H₈ O₂ . C₄ H₆ O₂)_x
CCI PMS

CM 6

CRN 80-62-6
CMF C₅ H₈ O₂



CM 7

CRN 79-41-4
CMF C₄ H₆ O₂



IC ICM C08F008-14
ICS C08F020-18; G03F007-00
CC 37-3 (Plastics Manufacture and Processing)
IT Optical filters

(curable polymer compound containing
methacrylate ester groups)

IT 25086-15-1P, Methacrylic acid-methyl methacrylate copolymer
42248-78-2P, Methacrylic acid-p-methylstyrene copolymer

852316-39-3P 852316-40-6P 852316-41-7P
(curable polymer compound containing
methacrylate ester groups)

IT 852316-42-8P 852316-43-9P 852316-44-0P
(curable polymer compound containing
methacrylate ester groups)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L50 ANSWER 2 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:371328 HCPLUS Full-text
DOCUMENT NUMBER: 142:412280
TITLE: Black composition, black coating composition for
color filter for liquid crystal
display
INVENTOR(S): Yoshioka, Masahiro; Nagase, Ryo; Tsujii, Masaya;
Eguchi, Masuchi
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: PCT Int. Appl., 39 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005037926	A1	20050428	WO 2004-JP15134	20041014
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1674531	A1	20060628	EP 2004-792366	20041014
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CN 1867636	A	20061122	CN 2004-80030614	20041014
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US 20070059612	A1	20070315	US 2006-575776	20060413
<--				
PRIORITY APPLN. INFO.:			JP 2003-354873	A 20031015
<--				
			WO 2004-JP15134	W 20041014

ED Entered STN: 29 Apr 2005

AB The black composition is capable of providing a resin black matrix of high adherence and high OD value having been attained by metal thin-film black matrixes only. The black composition comprises titanium oxynitride and a resin [e.g., benzophenonetetracarboxylic dianhydride-bis(3-aminopropyl)tetramethylsiloxane-4,4'-diaminodiphenyl ether-3,3'-diaminodiphenylsulfone-maleic anhydride-pyromellitic dianhydride copolymer], wherein the X-ray intensity ratios R1 and R2 satisfying the relationships of the following formulas: R1 > 0.70 and 0.85 < R2 < 1.80 (R1 = I3/[I3 + 1.812]); R2 = I2/II; II = maximum diffraction ray intensity when the titanium oxynitride diffraction angle 2θ is 25-26° in CuKα rays as x-ray source; I2 = maximum diffraction ray intensity when the titanium oxynitride diffraction angle 2θ is 27-28° in CuKα rays as x-ray source; and I3 = maximum diffraction ray intensity when the titanium oxynitride diffraction angle 2θ is 36-38° in CuKα rays as x-ray source).

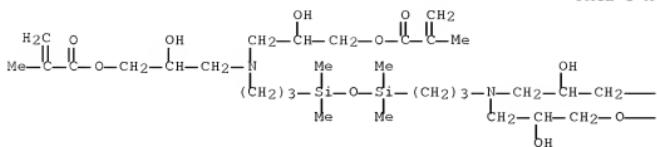
IT 850309-66-9P
(black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

RN 850309-66-9 HCPLUS

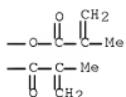
CN 2-Propenoic acid, 2-methyl-, polymer with 2,2-bis[(2-methyl-1-oxo-2-propenyl)oxymethyl]-1,3-propanediyl bis(2-methyl-2-propenoate), methyl 2-methyl-2-propenoate, 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-propenoate and (1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis[3,1-propenediyl]nitrilobis(2-hydroxy-3,1-propanediyl) tetrakis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CRN 850309-65-8
 CMF C38 H68 N2 O13 Si2

PAGE 1-A

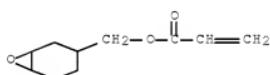


PAGE 1-B



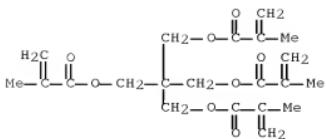
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CRN 64630-63-3
 CMF C10 H14 O3



CM 3

CRN 3253-41-6
 CMF C21 H28 O8



CM 4

CRN 80-62-6
CMF C5 H8 O2

CM 5

CRN 79-41-4
CMF C4 H6 O2

IC ICM C08L101-00
ICS C08L033-06; C08L079-08; C08K003-28; G02B005-20
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 74
IT Glass substrates
Light shields
Liquid crystal displays
Optical filters
(black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)
IT Polyimides, preparation
(black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)
IT Polyamic acids
(black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)
IT Carbon black, uses
Silsesquioxanes
(black composition containing titanium oxynitride and polyimide or acrylic

polymer for color filter in liquid crystal display)

IT Polyketones
(polyamic acid-polyether-, polysiloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polysulfones, preparation
(polyamic acid-polyether-polyketone-polysiloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polysiloxanes, preparation
(polyamic acid-polyether-polyketone-polysulfone-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyketones
(polyamic acid-polyether-polysiloxane-polysulfone-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyethers, preparation
(polyamic acid-polyketone-, polysiloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyethers, preparation
(polyamic acid-polyketone-polysiloxane-polysulfone-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polysiloxanes, preparation
(polyether-polyimide-polyketone-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polysiloxanes, preparation
(polyether-polyimide-polyketone-polysulfone-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polysulfones, preparation
(polyether-polyimide-polyketone-siloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyketones
(polyether-polyimide-polysulfone-siloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyketones
(polyether-polyimide-siloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyamic acids
(polyether-polyketone-, polysiloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyamic acids
(polyether-polyketone-polysiloxane-polysulfone-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyimides, preparation
(polyether-polyketone-polysulfone-siloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyimides, preparation

(polyether-polyketone-siloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyethers, preparation
 (polyimide-polyketone-polysulfone-siloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT Polyethers, preparation
 (polyimide-polyketone-siloxane-; black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT 84329-58-8P, Benzophenonetetracarboxylic dianhydride-bis(3-aminopropyl)tetramethylsiloxane-4,4'-diaminodiphenyl ether-pyromellitic dianhydride copolymer
 187939-39-5P, Benzophenonetetracarboxylic dianhydride-bis(3-aminopropyl)tetramethylsiloxane-4,4'-diaminodiphenyl ether-3,3'-diaminodiphenylsulfone-maleic anhydride-pyromellitic dianhydride copolymer 477949-88-5P, Cyclomer P-ACA 250-pentaerythritol tetramethacrylate copolymer
 (black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT 37271-26-4P, Titanium oxynitride 162816-07-1P,
 Methyltrimethoxysilane-phenyltrimethoxysilane copolymer
 850309-66-9P
 (black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

IT 7664-41-7, Ammonia, reactions 13463-67-7, Titania, reactions
 (black composition containing titanium oxynitride and polyimide or acrylic polymer for color filter in liquid crystal display)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 3 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:1035741 HCPLUS [Full-text](#)
 DOCUMENT NUMBER: 142:30180
 TITLE: Stable pigment dispersions for curable staining compositions for use in manufacture of color filters
 INVENTOR(S): Nakamura, Kazuhiko
 PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 84 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004339368	A	20041202	JP 2003-137670 <--	20030515
PRIORITY APPLN. INFO.:			JP 2003-137670 <--	20030515

ED Entered STN: 03 Dec 2004

AB The dispersions providing high-d. color stain at minimal dispersant use, contain (A) pigments, (B) dispersants which are polymers having structural

units derived from monomers bearing quaternary ammonium salt pendants and structural units derived from specific ester monomers in the absence of acid functional group and polyether chain, (C) copolymers having SP value (method given) ≥ 10 , structural units not containing acid functional group and epoxy group-containing structural units as co-dispersants, and (D) organic solvents where the staining compns. contain the dispersions and curable resins. Thus, preparing a diethylene glycol di-Me ether solution containing 32.8% a copolymer of N-phenylmaleimide, benzyl methacrylate and glycidyl methacrylate (acid number < 3 mg-KOH/g; weight-average mol. weight 7700), and mixing 50 parts this solution with C.I. Pigment Yellow 138 30, a dispersant (40% solids content) obtained from benzyl methacrylate-Bu methacrylate-dimethylaminoethyl methacrylate benzyl chloride quaternary ammonium salt-2-ethylhexyl methacrylate-Me methacrylate copolymer 15 and propylene glycol monomethyl ether acetate 205 parts gave a pigment dispersion having good dispersibility for use in color filter manufacture

IT 800377-61-1P

(curable resins; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

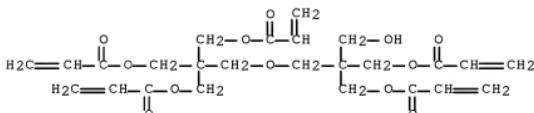
RN 800377-61-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with 2-[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[(1-oxo-2-propenyl)oxy]methyl-1,3-propanediyl di-2-propenoate, oxiranylmethyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 60506-81-2

CMF C25 H32 O12



CM 2

CRN 2495-37-6

CMF C11 H12 O2



CM 3

CRN 106-90-1

CMF C6 H8 O3



CM 4

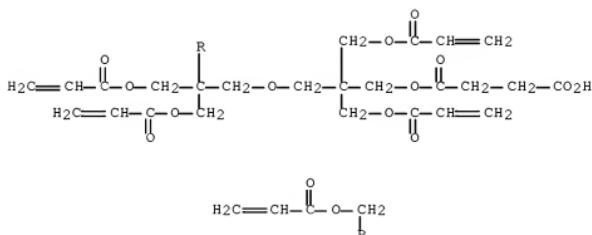
CRN 79-10-7
CMF C3 H4 O2

IT 800375-50-2P, Acrylic acid-benzyl methacrylate-glycidyl acrylate-TO 1382 copolymer
(curable resins; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

RN 800375-50-2 HCPLUS

CN Butanedioic acid, 1-[3-[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propyl] ester, polymer with 2-oxiranyl methyl 2-propenoate, phenylmethyl 2-methyl-2-propenoate and 2-propenoic acid
(CA INDEX NAME)

CM 1

CRN 215806-04-5
CMF C29 H36 O15

CM 2

CRN 2495-37-6

CMF C11 H12 O2



CM 3

CRN 106-90-1
CMF C6 H8 O3

CM 4

CRN 79-10-7
CMF C3 H4 O2

IC ICM C09D017-00
 ICS B01F017-52; B41M005-00; C08F220-32; C08F291-12; C08F297-00;
 C09B067-20; C09B067-46; C09D011-00; G02B005-20
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 42, 46
 ST phenylmaleimide copolymer dispersant pigment dispersion color
 filter; glycidyl methacrylate copolymer dispersant pigment
 dispersion color filter; benzyl methacrylate
 copolymer dispersant pigment dispersion color filter
 ; benzyl methacrylate copolymer dispersant pigment dispersion
 color filter; stain pigment dispersion curable resin
 color filter
 IT Epoxy resins, preparation
 (acrylic; manufacture of pigment dispersions for curable staining
 compns. for use in manufacture of color filters)
 IT Inks
 (jet-printing; manufacture of pigment dispersions for curable staining
 compns. for use in manufacture of color filters)
 IT Binders
 Dispersing agents
 Optical filters
 Photoresists

Pigments, nonbiological
 Stains, coloring materials
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 800375-51-3P, Benzyl methacrylate-Epikote 154-glycidyl methacrylate-neopentyl glycol diglycidyl ether-trimellitic acid copolymer 800377-61-1P
 (curable resins; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 800375-50-2P, Acrylic acid-benzyl methacrylate-glycidyl acrylate-TG 1382 copolymer
 (curable resins; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 51025-73-1P, Glycidyl methacrylate-N-vinyl-2-pyrrolidone copolymer
 87848-87-1P, Glycidyl methacrylate-N-phenylmaleimide copolymer
 731772-54-6P, Benzyl methacrylate-glycidyl methacrylate-N-vinyl-2-pyrrolidone copolymer 800375-44-4P, Benzyl methacrylate-glycidyl methacrylate-N-phenylmaleimide copolymer
 800375-45-5P 800375-46-6P 800375-47-7P, Benzyl methacrylate-glycidyl methacrylate-3-(3-pyridyl)propyl methacrylate copolymer 800375-49-9P, Benzyl methacrylate-Cyclomer M 100-N-phenylmaleimide copolymer 800379-14-0P 800379-15-1P, Benzyl methacrylate-butyl methacrylate-dimethylaminoethyl methacrylate benzyl chloride quaternary salt-2-ethylhexyl methacrylate-methyl methacrylate copolymer 800379-16-2P
 (dispersant; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 477572-63-7, Disperbyk 2000
 (dispersant; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 86927-55-1P, 3-(3-Pyridyl)propyl methacrylate 167552-67-2P
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 2859-67-8, 3-Pyridinepropanol 5036-48-6, 1-(3-Aminopropyl)imidazole
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 147-14-8, C.I. Pigment Blue 15:6 1328-53-6, C.I. Pigment Green 7
 4051-63-2, C.I. Pigment Red 177 5567-15-7, C.I. Pigment Yellow 83
 14302-13-7, C.I. Pigment Green 36 30125-47-4, C.I. Pigment Yellow 138 36888-99-0, C.I. Pigment Yellow 139 84632-65-5, C.I. Pigment Red 254 215247-95-3, C.I. Pigment Violet 23 872613-79-1, C.I. Pigment Yellow 150
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 920-46-7, Methacrylic chloride
 (manufacture of stable pigment dispersions for curable staining compns. for use in manufacture of color filters)

L50 ANSWER 4 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:1035733 HCPLUS Full-text
 DOCUMENT NUMBER: 142:30178
 TITLE: Stable pigment dispersions for curable staining compositions for use in manufacture of color filters
 INVENTOR(S): Nakamura, Kazuhiko
 PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 80 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004339358	A	20041202	JP 2003-137511 <--	20030515
PRIORITY APPLN. INFO.:			JP 2003-137511 <--	20030515

ED Entered STN: 03 Dec 2004

AB The dispersions providing high-d. color stain at minimal dispersant use, contain (A) pigments, (B) dispersants which are polymers having main chain structure at least derived from polymerized diisocyanate or/and triisocyanate compds. and a polyester chain with the absence of acid functional group and polyether chain, (C) copolymers at least having structural units not containing acid functional group having SP value (method given) ≥ 10 and epoxy group-containing structural units connected to each and other as co-dispersants and binders, and (D) organic solvents where the staining compns. contain the dispersions and curable resins. Thus, preparing a diethylene glycol di-Me ether solution containing 32.5% a copolymer of N-phenylmaleimide, benzyl methacrylate and glycidyl methacrylate (acid number < 3 mg-KOH/g; weight-average mol. weight 7500), mixing 40 parts this solution with C.I. Pigment Yellow 138 30, a dispersant made from the reaction product of a decanol-initiated polycaprolactone, Desmodur IL, and 1,12-diaminododecane, 30, and propylene glycol monomethyl ether acetate 200 parts gave a pigment dispersion having good dispersibility.

IT 800375-50-2P, Acrylic acid-benzyl methacrylate-glycidyl acrylate-TO 1382 copolymer

(curable resins; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

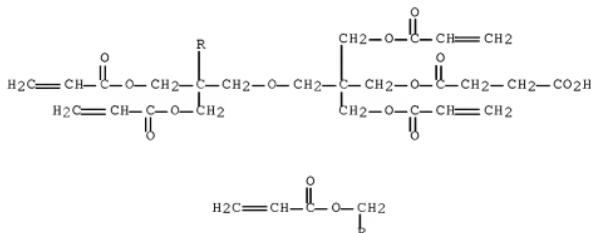
RN 800375-50-2 HCPLUS

CN Butanedioic acid, 1-[3-[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[(1-oxo-2-propenyl)oxy]methyl]propoxy]-2,2-bis[(1-oxo-2-propenyl)oxy]methyl]propyl ester, polymer with 2-oxiranylmethyl 2-propenoate, phenylmethyl 2-methyl-2-propenoate and 2-propenoic acid (CA INDEX NAME)

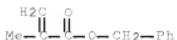
CM 1

CRN 215806-04-5

CMF C29 H36 O15



CM 2

CRN 2495-37-6
CMF C11 H12 O2

CM 3

CRN 106-90-1
CMF C6 H8 O3

CM 4

CRN 79-10-7
CMF C3 H4 O2

IC ICM C09D017-00
ICS B01F017-52; B41J002-01; C09B067-20; C09B067-46; C09D011-00;
G02B005-20

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)

Section cross-reference(s): 42, 46

ST polycaprolactone polyisocyanate copolymer dispersant pigment
dispersion color filter; stain pigment dispersion
curable resin color filter

IT Epoxy resins, preparation
(acrylic; manufacture of pigment dispersions for curable staining
compns. for use in manufacture of color filters)

IT Inks
(jet-printing; manufacture of pigment dispersions for curable staining
compns. for use in manufacture of color filters)

IT Binders
Dispersing agents
Optical filters

Photoresists

Stains, coloring materials

(manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT Polyurethanes, preparation
 (polyester-; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 800375-51-3P, Benzyl methacrylate-Epikote 154-glycidyl methacrylate-neopentyl glycol diglycidyl ether-trimellitic acid copolymer
 (curable resins; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 800375-50-2P, Acrylic acid-benzyl methacrylate-glycidyl acrylate-TO 1382 copolymer
 (curable resins; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 87848-87-1P, Glycidyl methacrylate-N-phenylmaleimide copolymer
 731772-54-6P, Benzyl methacrylate-glycidyl methacrylate-N-vinyl-2-pyrrolidone copolymer 800375-44-4P, Benzyl methacrylate-glycidyl methacrylate-N-phenylmaleimide copolymer
 800375-45-5P, Glycidyl methacrylate-3-(3-pyridyl)propyl methacrylate copolymer 800375-46-6P 800375-47-7P, Benzyl methacrylate-glycidyl methacrylate-3-(3-pyridyl)propyl methacrylate copolymer 800375-48-8P
 800375-49-9P, Benzyl methacrylate-Cyclomer M 100-N-phenylmaleimide copolymer
 (dispersant/binder; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 4843-89-4DP, 1,2-Diaminododecane, reaction products with polycaprolactone decyl ester and TDI pentamer
 (dispersant; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 154213-94-2, Disperbyk 161
 (dispersant; manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 54986-73-1DP, Desmodur IL, reaction products with polycaprolactone decyl ester and diamines 104673-46-3DP, reaction products with polyisocyanate and diamines 105009-20-9DP, reaction products with polyisocyanate and diamines 188128-09-8DP, reaction products with polycaprolactone decyl ester and diamines
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 51025-73-1P, Glycidyl methacrylate-N-vinyl-2-pyrrolidone copolymer
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 86927-55-1P, 3-(3-Pyridyl)propyl methacrylate 167552-67-2P
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 920-46-7, Methacrylic chloride 2859-67-8, 3-Pyridinepropanol
 5036-48-6, 1-(3-Aminopropyl)imidazole
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

IT 147-14-8, C.I. Pigment Blue 15:6 1328-53-6, C.I. Pigment Green 7
 4051-63-2, C.I. Pigment Red 177 5567-15-7, C.I. Pigment Yellow 83
 14302-13-7, C.I. Pigment Green 36 30125-47-4, C.I. Pigment Yellow 138 36888-99-0, C.I. Pigment Yellow 139 84632-65-5, C.I. Pigment Red 254 215247-95-3, C.I. Pigment Violet 23 872613-79-1, C.I. Pigment Yellow 150
 (manufacture of pigment dispersions for curable staining compns. for use in manufacture of color filters)

L50 ANSWER 5 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004990174 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:411794
 TITLE: Colored resin compositions with good transmittance
 and low voltage reduction effect for color
 filters and liquid crystal displays
 INVENTOR(S): Sako, Naoki; Ohata, Tatsuhiro; Tanooka, Hisanaga
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004325968	A	20041118	JP 2003-122853 <--	20030425
PRIORITY APPLN. INFO.:			JP 2003-122853 <--	20030425

ED Entered STN: 18 Nov 2004

AB Title compns. comprise colorants, solvents, nitrogen-containing dispersants, and biner resins having not nitrogen atoms, wherein total nitrogen retention ratio of the nitrogen-containing dispersants after heating at 230° for 30 min is ≤60%. Thus, C.I. Pigment Green 36 5.0, C.I. Pigment Yellow 138 5.0, Disper BYK 2001 4.0, and propylene glycol monomethyl ether acetate 86.0% were mixed, 53.0% of the resulting pigment dispersion was mixed with an acrylic acid and tetrahydrophthalic anhydride-modified glycidyl methacrylate-styrene-FA 513M copolymer (preparation given) 23.5, a diacrylate monomer 7.8, trimethylolpropane triacrylate 3.9, and a photoinitiator 11.7%, applied on a glass substrate, heated at 80° for 3 min, irradiated, developed, and baked at 230° for 30 min to give a color filter with good transmittance, high d., and low effect on voltage retention of the liquid crystal display.

IT 760968-91-0P 792966-05-3P
 (binder; colored resin compns. with good transmittance and low
 voltage reduction effect for color filters and liquid
 crystal displays)

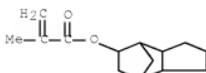
RN 760968-91-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, octahydro-4,7-methano-1H-inden-5-yl
 ester, polymer with ethenylbenzene,
 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
 di-2-propenoate, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-
 3,1-propanediyl)] di-2-propenoate, oxiranylmethyl
 2-methyl-2-propenoate, 2-propenoic acid and
 3a,4,7,7a-tetrahydro-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 34759-34-7

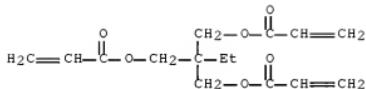
CMF C14 H20 O2



CM 2

CRN 15625-89-5

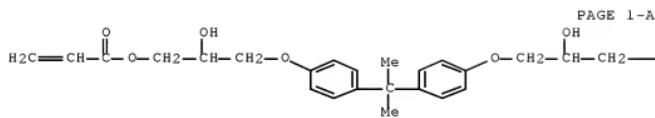
CMF C15 H20 O6



CM 3

CRN 4687-94-9

CMF C27 H32 O8



PAGE 1-B

CM 4

CRN 106-91-2

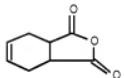
CMF C7 H10 O3



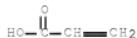
CM 5

CRN 100-42-5
CMF C8 H8

CM 6

CRN 85-43-8
CMF C8 H8 O3

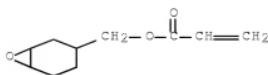
CM 7

CRN 79-10-7
CMF C3 H4 O2

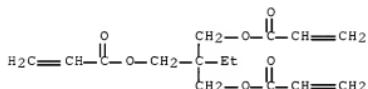
RN 792966-05-3 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with
 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
 di-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate,
 (1-methyllethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)]
 di-2-propenoate, methyl 2-methyl-2-propenoate,
 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-propenoate and phenylmethyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

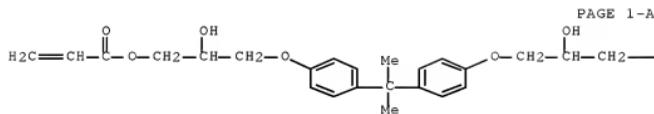
CRN 64630-63-3
CMF C10 H14 O3



CM 2

CRN 15625-89-5
CMF C15 H20 O6

CM 3

CRN 4687-94-9
CMF C27 H32 O8

PAGE 1-A



PAGE 1-B

CM 4

CRN 2495-37-6
CMF C11 H12 O2



CM 5

CRN 868-77-9
CMF C6 H10 O3

CM 6

CRN 80-62-6
CMF C5 H8 O2

CM 7

CRN 79-41-4
CMF C4 H6 O2

IC ICM G02B005-20
 ICS C08K005-00; C08L101-00; G03F007-004; G03F007-038
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 38, 74
 ST colored resin compn transmittance voltage redn effect color
 filter; pigment Disper BYK binder compn color
 filter prepn
 IT Binders
 Coloring materials
 Dispersing agents
 Glass substrates
 Liquid crystal displays
 Optical filters
 Pigments, nonbiological

(colored resin compns. with good transmittance and low voltage reduction effect for color filters and liquid crystal displays)

IT 760968-91-0P 792966-05-3P
 (binder; colored resin compns. with good transmittance and low voltage reduction effect for color filters and liquid crystal displays)

IT 79-10-7DP, Acrylic acid, reaction products with epoxy-containing acrylic copolymers and tetrahydrophthalic anhydride
 (colored resin compns. with good transmittance and low voltage reduction effect for color filters and liquid crystal displays)

IT 460741-05-3, Disperbyk 2001
 (dispersant; colored resin compns. with good transmittance and low voltage reduction effect for color filters and liquid crystal displays)

IT 85-43-8DP, Tetrahydrophthalic anhydride, reaction products with epoxy-containing acrylic copolymers and acrylic acid 492462-48-3P, Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer ester with (3,4-epoxycyclohexyl)methyl acrylate 760972-28-9DP, reaction products with acrylic acid and tetrahydrophthalic anhydride
 (intermediate for binder; colored resin compns. with good transmittance and low voltage reduction effect for color filters and liquid crystal displays)

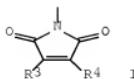
IT 14302-13-7, C.I. Pigment Green 36 30125-47-4, C.I. Pigment Yellow 138
 (pigment; colored resin compns. with good transmittance and low voltage reduction effect for color filters and liquid crystal displays)

L50 ANSWER 6 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:842675 HCPLUS Full-text
 DOCUMENT NUMBER: 141:358193
 TITLE: Pigment dispersion for color resist, photosensitive color composition, and color filter
 INVENTOR(S): Nakamura, Kazuhiko; Taguchi, Hiromu; Hasegawa, Mitsutaka
 PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan; Toa Gosei Chemical Industry Co., Ltd.
 SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004287364	A	20041014	JP 2003-124540 -->	20030324
JP 4195328	B2	20081210	JP 2003-124540 -->	20030324

PRIORITY APPLN. INFO.:

ED Entered STN: 15 Oct 2004
 GI



AB Disclosed is the pigment dispersion comprising a pigment, an organic solvent, an imide-based copolymer having a structural unit I (R_{3,4} = C₄ alkyl), a structural unit having an acid functional group, and a structural unit having a photohardenable group but I, and a pigment dispersing agent which is made from a polymer having the backbone structure containing diisocyanate and/or triisocyanate, a polyester chain, and a polymer free of an acid group and a polyether chain.

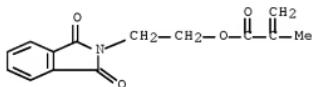
IT 775318-35-9P 775318-36-0P 775318-37-1P
(pigment dispersion for color resist)

RN 775318-35-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)ethyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate, phenylmethyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 18791-05-4
CMF C14 H13 N O4



CM 2

CRN 2495-37-6
CMF C11 H12 O2



CM 3

CRN 106-91-2
CMF C7 H10 O3



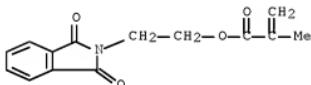
CM 4

CRN 79-10-7
CMF C3 H4 O2

RN 775318-36-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)ethyl ester, polymer with oxiranyl methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 18791-05-4
CMF C14 H13 N O4

CM 2

CRN 106-91-2
CMF C7 H10 O3

CM 3

CRN 79-10-7

CMF C3 H4 O2



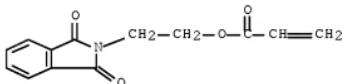
BN 775318-37-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate, phenylmethyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 15458-78-3

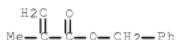
CMF C13 H11 N 04



CM 2

CRN 2495-37-6

CMF C11 H12 O2



CM 3

CRN 106-91-2

CMF C7 H10 03



CM 4

CRN 79-10-7
 CMF C3 H4 O2



IC ICM G03F007-004
 ICS C08G018-42; C08L075-06; C09B067-20; C09B067-46; C09D017-00;
 G02B005-20; G02B005-22; G03F007-038
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 35, 38
 IT Optical filters
 Photoimaging materials
 Photoresists
 Resists
 (pigment dispersion for color resist)
 IT 100601-62-5P, Caprolactone-1,12-diaminododecane-Desmodur IL copolymer
 775318-35-9P 775318-36-0P 775318-37-1P
 (pigment dispersion for color resist)

L50 ANSWER 7 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:837666 HCPLUS Full-text
 DOCUMENT NUMBER: 141:340378
 TITLE: Pigment dispersions for colored resists,
 photosensitive colored compositions, and
 color filters from them with
 excellent surface smoothness, electric
 reliability, and color reproducibility
 INVENTOR(S): Nakamura, Kazuhiko; Otsuka, Yoshimasa
 PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan; The Incotec
 Inc.
 SOURCE: Jpn. Kokai Tokkyo Koho, 70 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004287366	A	20041014	JP 2003-124544 <--	20030324
PRIORITY APPLN. INFO.:			JP 2003-124544 <--	20030324

ED Entered STN: 14 Oct 2004
 AB The dispersions or compns. contain pigments (A), dispersants (B) of polymers
 consisting of units $\text{CH}_2\text{C}(\text{XN}+\text{RaRbRc})\text{RdY}$.
 - [Ra-c = H, (un)substituted cyclic or
 linear hydrocarbyl; ≥ 2 of Ra-c may form ring; Rd = H, Me; X = divalent linking
 group; Y = counter anion] and units $\text{CH}_2\text{C}(\text{Re})(\text{C}: \text{OORf})$ [Re = H, Me; Rf =
 (un)substituted cyclic or linear alkyl, aryl, aralkyl] and bearing no ether
 chains or no acidic functional groups, copolymers (C) consisting of units
 bearing acidic functional groups, units bearing photocurable groups, and
 acidic group-free units with SP value ≥ 10 , and organic solvents (D).

10/579,066

IT 773145-21-4P 773145-23-6P 773145-28-1P
773145-31-6P 773145-33-8P 773145-35-0P
(dispersing aid; pigment compns. containing certain copolymer
dispersants and certain copolymer dispersing aids for color
filters with good surface smoothness and elec. reliability)

RN 773145-21-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with
1-phenyl-1H-pyrrole-2,5-dione and 2-propenoic acid,
2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA
INDEX NAME)

CM 1

CBN 5919-74-4

CME C7 H12 04



CM 2

CRN 773145-20-3

CMF (C11 H12 O2 . C10 H7 N O2 . C3 H4 O2)x
CCI PMS

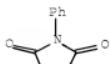
CM 3

CRN 2495-37-6
CMF C11 H12 02



CM 4

CRN 941-69-5
CMF C10 H7 N 02



CM 5

CRN 79-10-7
 CMF C3 H4 O2



RN 773145-23-6 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with
 N-[3-(1H-imidazol-1-yl)propyl]-2-methyl-2-propenamide and 2-propenoic
 acid, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxyl]propyl ester (9CI)
 (CA INDEX NAME)

CM 1

CRN 5919-74-4
 CMF C7 H12 O4



CM 2

CRN 773145-22-5
 CMF (C11 H12 O2 . C10 H15 N3 O . C3 H4 O2)x
 CCI PMS

CM 3

CRN 167552-67-2
 CMF C10 H15 N3 O



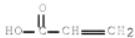
CM 4

CRN 2495-37-6
 CMF C11 H12 O2



CM 5

CRN 79-10-7
CMF C3 H4 O2



RN 773145-28-1 HCAPLUS

CN 2-Propenoic acid, polymer with 1-phenyl-1H-pyrrole-2,5-dione, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4
CMF C7 H12 04

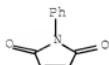


CM 2

CRN 773145-27-0
CMF (C10 H7 N O2 . C3 H4 O2)x
CCI PMS

CM 3

CRN 941-69-5
CMF C10 H7 N 02



CM 4

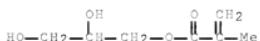
CRN 79-10-7
 CMF C3 H4 O2



RN 773145-31-6 HCPLUS
 CN 2-Propenoic acid, polymer with 1-ethenyl-2-pyrrolidinone and
 1-phenyl-1H-pyrrole-2,5-dione,
 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA
 INDEX NAME)

CM 1

CRN 5919-74-4
 CMF C7 H12 O4

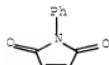


CM 2

CRN 773145-30-5
 CMF (C10 H7 N O2 . C6 H9 N O . C3 H4 O2)x
 CCI PMS

CM 3

CRN 941-69-5
 CMF C10 H7 N O2



CM 4

CRN 88-12-0
 CMF C6 H9 N O



CM 5

CRN 79-10-7
CMF C3 H4 O2

RN 773145-33-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(3-pyridinyl)propyl ester, polymer with 2-propenoic acid, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4
CMF C7 H12 O4

CM 2

CRN 773145-32-7
CMF (C12 H15 N O2 . C3 H4 O2)x
CCI PMS

CM 3

CRN 86927-55-1
CMF C12 H15 N O2

CM 4

CRN 79-10-7
CMF C3 H4 O2

RN 773145-35-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with
2-propenoic acid and 3-(3-pyridinyl)propyl 2-methyl-2-propenoate,
2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA
INDEX NAME)

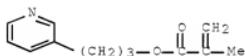
CM 1

CRN 5919-74-4
CMF C7 H12 O4

CM 2

CRN 773145-34-9
CMF (C12 H15 N O2 . C11 H12 O2 . C3 H4 O2)x
CCI PMS

CM 3

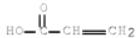
CRN 86927-55-1
CMF C12 H15 N O2

CM 4

CRN 2495-37-6
CMF C11 H12 O2



CM 5

CRN 79-10-7
CMF C3 H4 O2

IC ICM G03F007-004
ICS C08F290-12; C09B067-20; C09B067-46; G02B005-20; G02B005-22;
G03F007-038

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST dispersing aid pyridylpropyl methacrylate copolymer; color filter pigment elec reliability LCD; pigment dispersibility quaternary ammonium polymer dispersant

IT Dispersing agents
Liquid crystal displays
Optical filters
Photoimaging materials
Pigments, nonbiological
(pigment compns. containing certain copolymer dispersants and certain copolymer dispersing aids for color filters
with good surface smoothness and elec. reliability)

IT 773145-21-4P 773145-23-6P 773145-28-1P
773145-31-6P 773145-33-8P 773145-35-0P
(dispersing aid; pigment compns. containing certain copolymer dispersants and certain copolymer dispersing aids for color filters with good surface smoothness and elec. reliability)

IT 920-46-7, Methacrylic chloride 2859-67-8, 3-Pyridinepropanol 5036-48-6, 1-(3-Aminopropyl)imidazole
(for dispersing aid preparation; pigment compns. containing certain copolymer dispersants and certain copolymer dispersing aids for color filters with good surface smoothness and elec. reliability)

IT 86927-55-1P 167552-67-2P
(monomer, for dispersing aid preparation; pigment compns. containing certain copolymer dispersants and certain copolymer dispersing aids for color filters with good surface smoothness and elec. reliability)

IT 60506-81-2, Dipentaerythritol pentaacrylate 215806-04-5, TO 1382
(photosensitive composition containing; pigment compns. containing certain copolymer dispersants and certain copolymer dispersing aids for color filters with good surface smoothness and elec. reliability)

IT 773144-41-5P 773144-43-7P 773144-44-8P
(pigment dispersant; pigment compns. containing certain copolymer

dispersants and certain copolymer dispersing aids for color filters with good surface smoothness and elec. reliability)

IT 477572-63-7, Disperbyk 2000
(pigment dispersant; pigment compns. containing certain copolymer dispersants and certain copolymer dispersing aids for color filters with good surface smoothness and elec. reliability)

IT 147-14-8, C.I. Pigment Blue 15:6 1328-53-6, C.I. Pigment Green 7 4051-63-2, C.I. Pigment Red 177 5567-15-7, C.I. Pigment Yellow 83 14302-13-7, C.I. Pigment Green 36 30125-47-4, C.I. Pigment Yellow 138 36888-99-0, C.I. Pigment Yellow 139 84632-65-5, C.I. Pigment Red 254 112540-76-8, Titanium black 215247-95-3, C.I. Pigment Violet 23 872613-79-1, C.I. Pigment Yellow 150
(pigment; compns. containing certain copolymer dispersants and certain copolymer dispersing aids for color filters with good surface smoothness and elec. reliability)

L50 ANSWER 8 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:824148 HCPLUS Full-text

DOCUMENT NUMBER: 141:340541

TITLE: Curable resin composition, photosensitive pattern-forming curable resin composition, color filter, substrate for liquid crystalline panel, and liquid crystalline panel

INVENTOR(S): Hayashi, Shinji; Segu, Shunsuke; Taguchi, Hiromu; Hasegawa, Mitsutaka

PATENT ASSIGNEE(S): Dai Nippon Printing Co. Ltd., Japan

SOURCE: PCT Int. Appl., 144 pp.

CODEN: PIXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004086145	A1	20041007	WO 2004-JP4001	20040324
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
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JP 2004287230	A	20041014	JP 2003-80961	20030324
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JP 2004285271	A	20041014	JP 2003-80977	20030324
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JP 4171332	B2	20081022		
JP 2004287232	A	20041014	JP 2003-80991	20030324
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US 20060229376	A1	20061012	US 2005-550577	20050922

JP 2009064023	A	20090326	JP 2008-244248	<-- JP 2003-80943	20080924
			<-- JP 2003-80961	A 20030324	
			<-- JP 2003-80977	A 20030324	
			<-- JP 2003-80991	A 20030324	
			<-- WO 2004-JP4001	W 20040324	

ED Entered STN: 08 Oct 2004

AB The invention relates to a curable resin composition, characterized in that it comprises (a) a copolymer having a mol. structure wherein a constitutional unit having an acidic functional group and a constitutional unit having a photocurable functional group are connected, (b) a photopolymn. initiator having a tertiary amine structure and (c) a photocurable compound having one or more acidic functional groups and three or more photocurable functional groups; a substrate for a liquid crystalline panel having a protective layer for covering a coloring layer or a spacer for a liquid crystalline layer which is formed by using said curable resin composition; and a liquid crystalline panel using said substrate. The resin composition exhibits high exposure sensitivity and good developing properties and capable of forming a precise and accurate pattern, the substrate is reduced in the inconsistencies in color or contrast, and the panel exhibits excellent quality of display.

IT 114921-38-9P, Methyl methacrylate-methacrylic acid copolymer

glycidyl methacrylate ester 544416-50-4P
(resin in curable resin composition)

RN 114921-38-9 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl
2-methyl-2-propenoate, 2-hydroxy-3-((2-methyl-1-oxo-2-propen-1-
yl)oxy)propyl ester (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 25086-15-1

CMF (C5 H8 O2 . C4 H6 O2)x
CCI PMS

CM 3

CRN 80-62-6

CMF C5 H8 O2

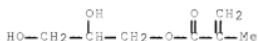


CM 4

CRN 79-41-4
CMF C4 H6 O2

RN 544416-50-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with
 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isooindol-2-yl)ethyl
 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-
 propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

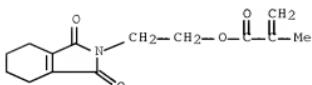
CM 1

CRN 5919-74-4
CMF C7 H12 O4

CM 2

CRN 77945-63-2
CMF (C14 H17 N O4 . C4 H6 O2)x
CCI PMS

CM 3

CRN 77945-62-1
CMF C14 H17 N O4

CM 4

CRN 79-41-4
CMF C4 H6 O2

IC ICM G03F007-038
 ICS G03F007-027; G02B005-20; G02F001-1335
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35
 ST curable resin compon photosensitive color filter
 liq cryst
 IT Liquid crystal displays
 Optical filters
 (curable resin composition, photosensitive pattern-forming curable resin composition, color filter, substrate for liquid crystalline panel, and liquid crystalline panel)
 IT 30674-80-7DP, 2-(Methacryloyloxy)ethyl isocyanate, reaction product with acrylic polymer 114921-38-9P, Methyl methacrylate-methacrylic acid copolymer glycidyl methacrylate ester 197773-90-3DP, Benzyl methacrylate/styrene/acrylic acid/2-hydroxyethyl methacrylate copolymer, reaction product with 2-(methacryloyloxy)ethyl isocyanate 544416-50-4P
 (resin in curable resin composition)
 REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L50 ANSWER 9 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:780753 HCPLUS Full-text
 DOCUMENT NUMBER: 1411:285563
 TITLE: Coloring resin composition, color filter, and liquid-crystal display
 INVENTOR(S): Sako, Naoki; Ohata, Tatsuhiro; Tanikawa, Keiko; Naruto, Toshiya; Tanooka, Hisanaga; Nagao, Takumi; Kawana, Shin
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
 SOURCE: PCT Int. Appl., 167 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004081070	A1	20040923	WO 2004-JP331	20040116

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MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UC, US, UZ, VC,
VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

JP 2005017441	A	20050120	JP 2003-179253 <--	20030624
JP 2005154708	A	20050616	JP 2004-9772 <--	20040116
JP 4182887	B2	20081119		
CN 1768086	A	20060503	CN 2004-80009124 <--	20040116
CN 101113224	A	20080130	CN 2007-10147187 <--	20040116
JP 2004339501	A	20041202	JP 2004-127072 <--	20040422
JP 2008248255	A	20081016	JP 2008-132669 <--	20080521
PRIORITY APPLN. INFO.:			JP 2003-30954 <--	A 20030207
			JP 2003-45364 <--	A 20030224
			JP 2003-47604 <--	A 20030225
			JP 2003-122854 <--	A 20030425
			JP 2003-124291 <--	A 20030428
			JP 2003-366100 <--	A 20031027
			JP 2002-210065 <--	A 20020718
			CN 2004-80009124	A3 20040116
			JP 2004-9772	A3 20040116

ED Entered STN: 24 Sep 2004

AB A coloring resin composition which has satisfactory transparency, is less apt to leave a coloring resin composition residue remaining undissolved in the nonimage areas on a substrate, and has excellent adhesion to the substrate. It is inhibited from generating foreign matters such as dried agglomerates in application by die coating and is capable of evenly forming color pixels with a high d. The coloring resin composition comprises a colorant, a solvent, a dispersant, and a binder resin, and is characterized in that the binder resin comprises a nitrogen-free binder resin having a structure formed by causing the epoxy group of an epoxidized unsatd. compound to add to each of carboxy groups of a carboxylated resin and the dispersant comprises a nitrogenous dispersant, the proportion of the nitrogenous dispersant to the colorant being 0.01 to 0.5. Thus, styrene 20, glycidyl methacrylate 57, and FA 513M tricyclodecane structure-containing monoacrylate 82 parts were stirred at 120° for 2 h, acrylic acid 27, trisdimethylaminomethylphenol 0.7, and hydroquinone 0.12 parts were added therein and reacted at 120° for 6 h, 52 parts tetrahydrophthalic anhydride and 0.7 parts triethylamine were added therein and reacted at 120° for 3.5 h to give a binder resin with Mw 150,000, 6.5 parts of which was mixed with red colorant 10.0, solvent 127.0, dispersant (preparation given) 6.25, succinic anhydride 0.35, bisphenol A diglycidyl ether diacrylate 3.25, trimethylolpropane triacrylate 3.25, 2-

mercaptobenzothiazole 0.83, Me p-dimethylaminobenzoate 0.83, and Michler's ketone 0.83 parts, applied on a black matrix-attached glass substrate, irradiated with a high pressure mercury lamp through a neg. photomask, developed, washed, heat-cured at 230° for 7 min, and repeated the same process using a blue colorant resin composition and green colorant resin composition to give a color filter with good appearance, reflectance 98% at 500 nm, 99% at 450 nm, and 98% at 550 nm.

IT 760968-92-1P 760968-94-3P 760968-95-4P

760968-96-5P

(binder; coloring resin compns. for color filters
and liquid-crystal displays)

RN 760968-92-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, octahydro-4,7-methano-1H-inden-5-yl ester, polymer with ethenylbenzene,
2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
di-2-propenoate, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-
3,1-propanediyl)] di-2-propenoate, oxiranylmethyl
2-methyl-2-propenoate, 2-propenoic acid and
3a,4,7,7a-tetrahydro-1,3-isobenzofurandione, compd. with
N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8

CMF C6 H15 N



CM 2

CRN 760968-91-0

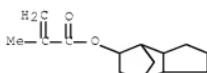
CMF (C27 H32 O8 . C15 H20 O6 . C14 H20 O2 . C8 H8 O3 . C8 H8 . C7 H10
O3 . C3 H4 O2)x

CCI PMS

CM 3

CRN 34759-34-7

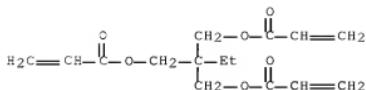
CMF C14 H20 O2



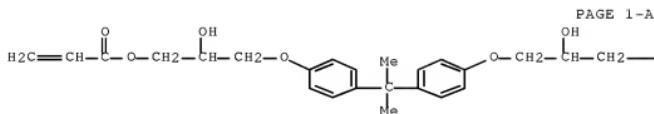
CM 4

CRN 15625-89-5

CMF C15 H20 O6



CM 5

CRN 4687-94-9
CMF C27 H32 O8

PAGE 1-A

PAGE 1-B



CM 6

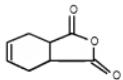
CRN 106-91-2
CMF C7 H10 O3

CM 7

CRN 100-42-5
CMF C8 H8



CM 8

CRN 85-43-8
CMF C8 H8 O3

CM 9

CRN 79-10-7
CMF C3 H4 O2

RN 760968-94-3 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
 di-2-propenoate, (1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-
 3,1-propanediyl)] di-2-propenoate, octahydro-4,7-methano-1H-inden-5-yl
 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate,
 phenylmethyl 2-methyl-2-propenoate, 2-propenoic acid and
 3a,4,7,7a-tetrahydro-1,3-isobenzofurandione, compd. with
 N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

CM 2

CRN 760968-93-2

CMF (C27 H32 O8 . C15 H20 O6 . C14 H20 O2 . C11 H12 O2 . C8 H8 O3 .

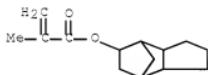
C7 H10 O3 . C5 H8 O2 . C3 H4 O2)x

CCI PMS

CM 3

CRN 34759-34-7

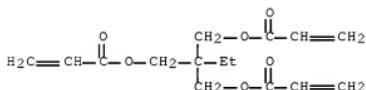
CMF C14 H20 O2



CM 4

CRN 15625-89-5

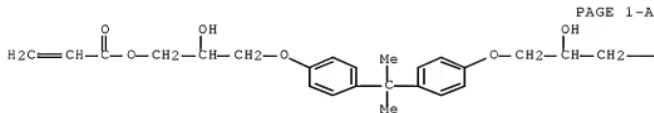
CMF C15 H20 O6



CM 5

CRN 4687-94-9

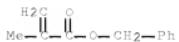
CMF C27 H32 O8



PAGE 1-B



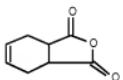
CM 6

CRN 2495-37-6
CMF C11 H12 O2

CM 7

CRN 106-91-2
CMF C7 H10 O3

CM 8

CRN 85-43-8
CMF C8 H8 O3

CM 9

CRN 80-62-6
CMF C5 H8 O2

CM 10

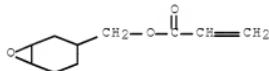
CRN 79-10-7
 CMF C3 H4 O2



RN 760968-95-4 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene,
 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
 di-2-propenoate, (1-methylethyldene)bis[4,1-phenyleneoxy(2-hydroxy-
 3,1-propanediyl)] di-2-propenoate and
 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-propenoate (9CI) (CA INDEX NAME)

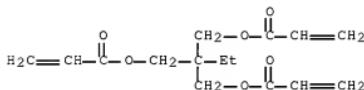
CM 1

CRN 64630-63-3
 CMF C10 H14 O3



CM 2

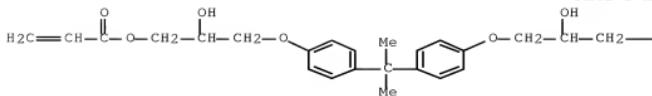
CRN 15625-89-5
 CMF C15 H20 O6



CM 3

CRN 4687-94-9
 CMF C27 H32 O8

PAGE 1-A



PAGE 1-B



CM 4

CRN 100-42-5

CMF C8 H8



CM 5

CRN 79-41-4

CMF C4 H6 O2



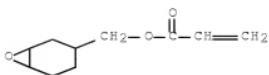
RN 760968-96-5 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
 di-2-propenoate, (1-methylethyldene)bis[4,1-phenyleneoxy(2-hydroxy-
 3,1-propanediyl)] di-2-propenoate, methyl 2-methyl-2-propenoate,
 7-oxabicyclo[4.1.0]hept-3-ylmethyl 2-propenoate and phenylmethyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

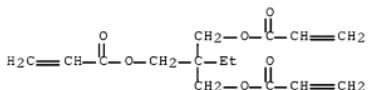
CM 1

CRN 64630-63-3

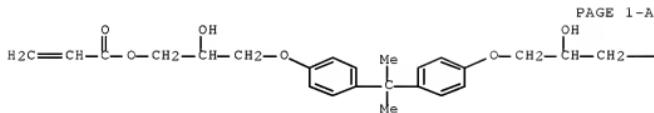
CMF C10 H14 O3



CM 2

CRN 15625-89-5
CMF C15 H20 O6

CM 3

CRN 4687-94-9
CMF C27 H32 O8

CM 4

CRN 2495-37-6
CMF C11 H12 O2



CM 5

CRN 80-62-6

CMF C5 H8 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



IT 760972-30-3P, FA 513M-glycidyl methacrylate-styrene copolymer acrylate tetrahydrophthalate triethylamine salt 760972-33-6P , Benzyl methacrylate-FA 513M-glycidyl methacrylate-methyl methacrylate copolymer acrylate tetrahydrophthalate triethylamine salt (intermediate for binder; coloring resin compns. for color filters and liquid-crystal displays)

RN 760972-30-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, octahydro-4,7-methano-1H-inden-5-yl ester, polymer with ethenylbenzene and 2-oxiranymethyl 2-methyl-2-propenoate, hydrogen 4-cyclohexene-1,2-dicarboxylate 2-propenoate, compd. with N,N-diethylethanamine (CA INDEX NAME)

CM 1

CRN 121-44-8

CMF C6 H15 N

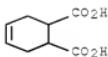


CM 2

CRN 760972-29-0
 CMF (C14 H20 O2 . C8 H8 . C7 H10 O3)x . x C8 H10 O4 . x C3 H4 O2

CM 3

CRN 88-98-2
 CMF C8 H10 O4



CM 4

CRN 79-10-7
 CMF C3 H4 O2

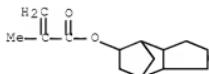


CM 5

CRN 760972-28-9
 CMF (C14 H20 O2 . C8 H8 . C7 H10 O3)x
 CCI PMS

CM 6

CRN 34759-34-7
 CMF C14 H20 O2



CM 7

CRN 106-91-2
 CMF C7 H10 O3



CM 8

CRN 100-42-5
CMF C8 H8



RN 760972-33-6 HCPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with methyl octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and phenylmethyl 2-methyl-2-propenoate, hydrogen 4-cyclohexene-1,2-dicarboxylate 2-propenoate, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

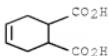


CM 2

CRN 760972-32-5
CMF (C14 H20 O2 . C11 H12 O2 . C7 H10 O3 . C5 H8 O2)x . x C8 H10 O4 .
x C3 H4 O2

CM 3

CRN 88-98-2
CMF C8 H10 O4



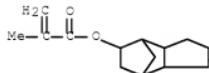
CM 4

CRN 79-10-7
CMF C3 H4 O2

CM 5

CRN 760972-31-4
CMF (C14 H20 O2 . C11 H12 O2 . C7 H10 O3 . C5 H8 O2)x
CCI PMS

CM 6

CRN 34759-34-7
CMF C14 H20 O2

CM 7

CRN 2495-37-6
CMF C11 H12 O2

CM 8

CRN 106-91-2
CMF C7 H10 O3

CM 9

CRN 80-62-6
CMF C5 H8 O2

IC ICM C08F299-00
ICS G02B005-20

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 38, 74

ST coloring resin compn color filter liq crystal display; epoxy tricyclodecane contg acrylic copolymer biner prepns; binder colorant dispersant compn resist color filter prepns

IT Quaternary ammonium compounds, uses
(block copolymers containing, colorant dispersants; coloring resin compns. for color filters and liquid-crystal displays)

IT Polymers, uses
(block, quaternary ammonium-containing, colorant dispersants; coloring resin compns. for color filters and liquid-crystal displays)

IT Polyoxyalkylenes, uses
(colorant dispersants, reaction products with polyisocyanates, polycaprolactone monoalkyl esters, and diamines; coloring resin compns. for color filters and liquid-crystal displays)

IT Acrylic polymers, uses
Phosphates, uses
Polyurethanes, uses
(colorant dispersants; coloring resin compns. for color filters and liquid-crystal displays)

IT Dispersing agents
(colorant; coloring resin compns. for color filters and liquid-crystal displays)

IT Binders
Coloring materials
Liquid crystal displays
Optical filters
Photoresists
(coloring resin compns. for color filters and liquid-crystal displays)

IT Anhydrides
Carboxylic acids, uses
(coloring resin compns. for color filters and liquid-crystal displays)

IT Pigments, nonbiological
(derivs., auxiliary colorant dispersants; coloring resin compns. for color filters and liquid-crystal displays)

IT Polymers, uses
(graft, nitrogen-containing, colorant dispersants; coloring resin

compns. for color filters and liquid-crystal displays)

IT Polyesters, reactions
(monoalkyl ester, intermediate for colorant dispersants; coloring resin compns. for color filters and liquid-crystal displays)

IT Polyurethanes, uses
(polyester-polyoxalkylene-, colorant dispersants; coloring resin compns. for color filters and liquid-crystal displays)

IT 30125-47-4D, Pigment Yellow 138, sulfonate derivs.
(auxiliary colorant dispersant; coloring resin compns. for color filters and liquid-crystal displays)

IT 760968-92-1P 760968-94-3P 760968-95-4P
760968-96-5P 760968-97-6P 760968-99-8P
(binder; coloring resin compns. for color filters and liquid-crystal displays)

IT 72145-60-9P, Benzyl methacrylate-methacrylic acid-methyl methacrylate copolymer
(binder; coloring resin compns. for color filters and liquid-crystal displays)

IT 91-08-7DP, 2,6-Tolylene diisocyanate, reaction products with polycaprolactone monoalkyl esters, polyoxalkylenes, and diamines 109-55-7DP, N,N-Dimethyl-1,3-propanediamine, reaction products with polyisocyanates, polycaprolactone monoalkyl esters, and polyoxalkylenes 25190-06-1DP, Polytetramethylene glycol, reaction products with polyisocyanates, polycaprolactone monoalkyl esters, and diamines 47809-75-6DP, reaction products with polycaprolactone monoalkyl esters, polyoxalkylenes, and diamines 63700-60-7DP, reaction products with polycaprolactone monoalkyl esters, polyoxalkylenes, and diamines 81157-48-4DP, reaction products with polyisocyanates, polyoxalkylenes, and diamines 81208-91-5DP, reaction products with polyisocyanates, polyoxalkylenes, and diamines 113007-78-6DP, reaction products with polyisocyanates, polyoxalkylenes, and diamines 139465-65-9DP, Mitec GP 750A, reaction products with polycaprolactone monoalkyl esters, polyoxalkylenes, and diamines 164218-30-8P 247161-79-1DP, reaction products with polyisocyanates, polyoxalkylenes, and diamines 760972-36-9P, Caprolactone-ethyleneimine graft copolymer stearate (colorant dispersant; coloring resin compns. for color filters and liquid-crystal displays)

IT 147-14-8, C.I. Pigment Blue 15:6 4051-63-2, C.I. Pigment Red 177
14302-13-7, C.I. Pigment Green 36 30125-47-4, C.I. Pigment Yellow 138
(colorant; coloring resin compns. for color filters and liquid-crystal displays)

IT 61-82-5DP, 3-Amino-1,2,4-triazole, reaction products with polyisocyanates, polycaprolactone monoalkyl esters, and polyoxalkylenes
(coloring resin compns. for color filters and liquid-crystal displays)

IT 108-30-5, Succinic anhydride, uses 108-31-6, Maleic anhydride, uses
(coloring resin compns. for color filters and liquid-crystal displays)

IT 154213-94-2, Disperbyk 161 460741-05-3, Disperbyk 2001
760972-27-8, Solisperse 34750
(dispersant; coloring resin compns. for color filters and liquid-crystal displays)

IT 492462-48-3P, Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer ester with

(3, 4-epoxycyclohexyl)methyl acrylate 760972-30-3P, FA
 513M-glycidyl methacrylate-styrene copolymer acrylate
 tetrahydrophthalate triethylamine salt 760972-33-6P, Benzyl
 methacrylate-FA 513M-glycidyl methacrylate-methyl methacrylate
 copolymer acrylate tetrahydrophthalate triethylamine salt
 760972-34-7P, Methacrylic acid-styrene copolymer ester with
 (3, 4-epoxycyclohexyl)methyl acrylate 760972-35-8P, Benzyl
 methacrylate-methacrylic acid-methyl methacrylate copolymer ester with
 (3, 4-epoxycyclohexyl)methyl acrylate

(intermediate for binder; coloring resin compns. for color
 filters and liquid-crystal displays)

IT 81157-48-4P, Polycaprolactone, sru, monoester with lauryl alcohol
 81208-91-5P, Polycaprolactone monoester with lauryl alcohol
 113007-78-6P, Polycaprolactone, sru, monoester with methyl alcohol
 247161-79-1P, Polycaprolactone monoester with methyl alcohol

(intermediate for colorant dispersant; coloring resin compns. for
 color filters and liquid-crystal displays)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L50 ANSWER 10 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:758933 HCAPLUS Full-text

DOCUMENT NUMBER: 141:262190

TITLE: Curable compositions and formation of protective
 films with low dielectric constant and excellent
 surface smoothness and heat resistance from them

INVENTOR(S): Baba, Atsushi; Nishikawa, Michinori

PATENT ASSIGNEE(S): JSR Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 27 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004256754	A	20040916	JP 2003-51267 ----- -----	20030227 ----- -----

PRIORITY APPLN. INFO.: JP 2003-51267

ED Entered STN: 17 Sep 2004

AB The compns., useful for color filters for LCD and CCD, contain copolymers (A) of epoxy-containing unsatd. compds., unsatd. carboxylic acids (optional) and/or their anhydrides, and other olefinic unsatd. compds., cationically polymerizable compds. (B) other than A, and fullerenes (C) and/or their derivs. Thus, adding 35 parts trimellitic anhydride to a composition containing 2,4-diphenyl-4-methyl-1-pentene-glycidyl methacrylate-styrene copolymer 100, Epikote 157S65 (bisphenol A novolak epoxy resin) 20.0, hydroxy-containing fullerene [C₆₀(OH)_n; n = 20-30] 10.0, and γ -glycidoxypropyltrimethoxysilane 15 parts, applying it on a glass substrate, and heating it at 230° for 60 min gave a coating showing light transmittance (400-800 nm) 99%, pencil hardness 5H, and good adhesion, thermal shrinkage resistance, and surface smoothness.

IT 157015-57-1P 405297-65-6P,

Cyclohexylmaleimide-glycidyl methacrylate-methacrylic acid-styrene copolymer

(heat- or radiation-curable compns. for dielec. protective coatings
 for color filters with good surface smoothness,

transparency, and heat resistance)

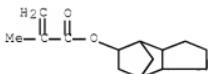
RN 157015-57-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and 2-oxiranylmethyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 34759-34-7

CMF C14 H20 O2



CM 2

CRN 106-91-2

CMF C7 H10 O3



CM 3

CRN 100-42-5

CMF C8 H8



CM 4

CRN 79-41-4

CMF C4 H6 O2



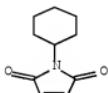
RN 405297-65-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene and 2-oxiranylmethyl
2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 1631-25-0

CMF C10 H13 N O2



CM 2

CRN 106-91-2

CMF C7 H10 O3



CM 3

CRN 100-42-5

CMF C8 H8



CM 4

CRN 79-41-4

CMF C4 H6 O2



IT 600737-88-0P 600737-89-1P 600737-90-4P
 756479-35-3P 756479-36-4P
 (heat- or radiation-curable compns. for dielec. protective coatings
 for color filters with good surface smoothness,
 transparency, and heat resistance)

RN 600737-88-0 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with Epikote 157S65,
 ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl
 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI)
 (CA INDEX NAME)

CM 1

CRN 137598-82-4

CMF Unspecified

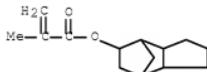
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34759-34-7

CMF C14 H20 O2



CM 3

CRN 106-91-2

CMF C7 H10 O3



CM 4

CRN 100-42-5

CMF C8 H8

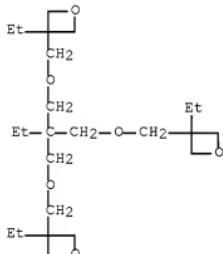


CM 5

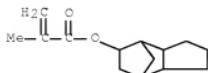
CRN 79-41-4
CMF C4 H6 O2

RN 600737-89-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene,
 3,3'-[2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl]-1,3-
 propanediyl]bis(oxymethylene)bis[3-ethyloxetane],
 octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and
 oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 180423-87-4
CMF C24 H44 O6

CM 2

CRN 34759-34-7
CMF C14 H20 O2

CM 3

CRN 106-91-2
CMF C7 H10 O3

CM 4

CRN 100-42-5
CMF C8 H8

CM 5

CRN 79-41-4
CMF C4 H6 O2

RN 600737-90-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
1-cyclohexyl-1H-pyrrole-2,5-dione, Epikote 157S65, ethenylbenzene and
oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

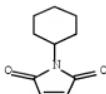
CM 1

CRN 137598-82-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1631-25-0
CMF C10 H13 N O2



CM 3

CRN 106-91-2
CMF C7 H10 O3

CM 4

CRN 100-42-5
CMF C8 H8

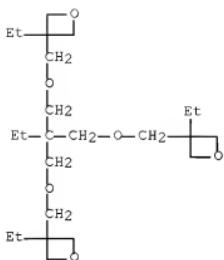
CM 5

CRN 79-41-4
CMF C4 H6 O2

RN 756479-35-3 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with
 1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene,
 3,3'-(2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl)-1,3-
 propanediyl]bis(oxymethylene)]bis[3-ethylloxetane] and oxiranyl methyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

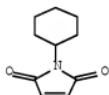
CM 1

CRN 180423-87-4
CMF C24 H44 O6



CM 2

CRN 1631-25-0
 CMF C10 H13 N O2



CM 3

CRN 106-91-2
 CMF C7 H10 O3



CM 4

CRN 100-42-5
 CMF C8 H8



CM 5

CRN 79-41-4
CMF C4 H6 O2

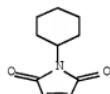
RN 756479-36-4 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with (chloromethyl)oxirane,
 1-cyclohexyl-1H-pyrrole-2,5-dione, Epikote 157565, ethenylbenzene,
 4,4'-(1-methylethylidene)bis[phenol] and oxiranylmethyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 137598-82-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

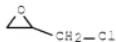
CM 2

CRN 1631-25-0
CMF C10 H13 N O2

CM 3

CRN 106-91-2
CMF C7 H10 O3

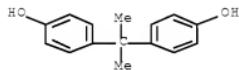
CM 4

CRN 106-89-8
CMF C3 H5 Cl O

CM 5

CRN 100-42-5
CMF C8 H8

CM 6

CRN 80-05-7
CMF C15 H16 O2

CM 7

CRN 79-41-4
CMF C4 H6 O2

IC ICM C08G059-20
ICS B05D007-24; C08K003-04; C08K005-00; C08L063-00; C09D123-00;
C09D163-00

CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 37, 73

ST color filter protection film smooth surface;
 thermal curing dielec film heat resistance; radiation curing glycidyl
 methacrylate copolymer fullerene

IT Polyoxyalkylenes, uses
 (amino- and methoxy-terminated, reaction products with fullerene
 60; heat- or radiation-curable compns. for dielec. protective
 coatings for color filters with good surface
 smoothness, transparency, and heat resistance)

IT Transparent materials
 (coatings; heat- or radiation-curable compns. for dielec.
 protective coatings for color filters with good
 surface smoothness, transparency, and heat resistance)

IT Epoxy resins, uses
 (cured; heat- or radiation-curable compns. for dielec. protective
 coatings for color filters with good surface
 smoothness, transparency, and heat resistance)

IT Heat-resistant materials
 (dielec. coatings; heat- or radiation-curable compns. for dielec.
 protective coatings for color filters with good
 surface smoothness, transparency, and heat resistance)

IT Leveling agents
 Optical filters
 (heat- or radiation-curable compns. for dielec. protective coatings
 for color filters with good surface smoothness,
 transparency, and heat resistance)

IT Fullerenes
 (heat- or radiation-curable compns. for dielec. protective coatings
 for color filters with good surface smoothness,
 transparency, and heat resistance)

IT Electric insulators
 (heat-resistant coatings; heat- or radiation-curable compns. for
 dielec. protective coatings for color filters
 with good surface smoothness, transparency, and heat resistance)

IT Coating materials
 (radiation-curable; heat- or radiation-curable compns. for dielec.
 protective coatings for color filters with good
 surface smoothness, transparency, and heat resistance)

IT Coating materials
 (transparent; heat- or radiation-curable compns. for dielec.
 protective coatings for color filters with good
 surface smoothness, transparency, and heat resistance)

IT 141-82-2DP, Malonic acid, esters, reaction products with fullerene 60
 25322-68-3DP, Polyethylene glycol, amino- and methoxy-terminated,
 reaction products with fullerene 60 99685-96-8DP, Fullerene 60,
 hydroxy-, dicarboxymethyl-, or methoxypolyoxyethylene-containing
 756894-20-9DP, Sunbright MEPA 50H, reaction products with fullerene 60
 (heat- or radiation-curable compns. for dielec. protective coatings
 for color filters with good surface smoothness,
 transparency, and heat resistance)

IT 157015-57-1P 405297-65-6P,
 Cyclohexylmaleimide-glycidyl methacrylate-methacrylic acid-styrene
 copolymer 756479-16-0P, 2,4-Diphenyl-4-methyl-1-pentene-glycidyl
 methacrylate-styrene copolymer 756479-19-3P,
 2,4-Diphenyl-4-methyl-1-pentene-glycidyl
 methacrylate-tricyclo[5.2.1.0_{2,6}]decanyl methacrylate copolymer
 (heat- or radiation-curable compns. for dielec. protective coatings
 for color filters with good surface smoothness,
 transparency, and heat resistance)

IT 600737-88-0P 600737-89-1P 600737-90-4P
 756479-26-2P 756479-28-4P 756479-30-8P,
 2,4-Diphenyl-4-methyl-1-pentene-glycidyl
 methacrylate-styrene-trimellitic anhydride copolymer 756479-32-0P
 756479-34-2P 756479-35-3P 756479-36-4P
 (heat- or radiation-curable compns. for dielec. protective coatings
 for color filters with good surface smoothness,
 transparency, and heat resistance)

L50 ANSWER 11 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:534427 HCAPLUS Full-text
 DOCUMENT NUMBER: 141:96795
 TITLE: Color filter black matrix
 resist composition and carbon black dispersion
 composition used for the composition
 INVENTOR(S): Kamata, Hirotoshi; Kamijo, Masanao; Onishi, Mina
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: PCT Int. Appl., 69 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004055597	A1	20040701	WO 2003-JP16174	20031217 ->-
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SX, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004198717	A	20040715	JP 2002-366878	20021218 ->-
AU 2003294175	A1	20040709	AU 2003-294175	20031217 ->-
EP 1576418	A1	20050921	EP 2003-789601	20031217 ->-
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK CN 1729429	A	20060201	CN 2003-80106777	20031217 ->-
US 20060041053	A1	20060223	US 2005-539283	20050616 ->-
PRIORITY APPLN. INFO.:			JP 2002-366878	A 20021218 ->-
			US 2002-435997P	P 20021226 ->-
			WO 2003-JP16174	W 20031217 ->-

ED Entered STN: 02 Jul 2004

AB The present invention provides a carbon black dispersion composition for a color filter black matrix resist composition, containing (A) a carbon black having specified phys. properties (average primary particle diameter, concentration of surface carboxyl groups), (B) a copolymer having an amino group and/or its quaternary ammonium salt, and (C) an organic solvent, and a color filter black matrix resist composition that contains the above-mentioned dispersion composition, (D) a binder resin having a carboxyl group, (E) an ethylenically unsatd. monomer, (F) a photopolymn. initiator, and (G) specified multifunctional thiol compound and can easily form a thin film or pattern having high light-shielding property by photolithog. method pattern, has excellent storage stability, and exhibits sufficient sensitivity and resolution

IT 30400-35-2P, Butyl Methacrylate-glycidyl methacrylate-methacrylic acid-methyl methacrylate copolymer (color filter black matrix resist composition and carbon black dispersion composition containing)

RN 30400-35-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-oxiranylmethyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 97-88-1
CMF C8 H14 O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2

IC ICM G03F007-00
ICS G03F001-1335

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38

ST color filter black matrix resist compn carbon dispersion

IT Carbon black, uses
(Special Black 250; color filter black matrix resist composition and carbon black dispersion composition containing)

IT Optical filters
Photolithography
(color filter black matrix resist composition and carbon black dispersion composition)

IT Cameras
Liquid crystal displays
(color filter black matrix resist composition and carbon black dispersion composition for)

IT 132011-04-2
(binder; color filter black matrix resist composition and carbon black dispersion composition containing)

IT 30400-35-2P, Butyl Methacrylate-glycidyl methacrylate-methacrylic acid-methyl methacrylate copolymer
714956-12-4P, Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate-2-(methacryloyloxy)ethyl isocyanate copolymer
714956-13-5P, Macromonomer AA 6-Light Ester DQ 100-Light Ester DM-NK Ester M 20G copolymer 714959-43-0P, Macromonomer AA 6-ethyl acrylate-Light Ester DQ 100-Light Ester DM copolymer 714959-44-1P, Macromonomer AA 6-Light Ester DQ 100-Light Ester DM-Light Ester PO copolymer
(color filter black matrix resist composition and carbon black dispersion composition containing)

IT 590678-22-1P 645402-18-2P
(photopolymn. initiator; color filter black matrix resist composition and carbon black dispersion composition containing)

IT 77-99-6, Trimethylolpropane 89-98-5, o-Chlorobenzaldehyde 3457-48-5, 4, 4'-Dimethylbenzil 54051-19-3, 3-Mercaptobutanoic acid
(preparation of photopolymn. initiator for color filter black matrix resist composition)

IT 645402-19-3P
(preparation of photopolymn. initiator for color filter black matrix resist composition)

IT 108-94-1, Cyclohexanone, uses

(solvent; color filter black matrix resist
 composition and carbon black dispersion composition containing)
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

L50 ANSWER 12 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:534426 HCPLUS Full-text
 DOCUMENT NUMBER: 141:96711
 TITLE: Color filter black matrix
 resist composition
 INVENTOR(S): Kamata, Hirotoshi; Kamijo, Masanao; Onishi, Mina
 PATENT ASSIGNEE(S): Showa Denko K. K., Japan
 SOURCE: PCT Int. Appl., 64 pp.
 CODEN: PIXKD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004055596	A1	20040701	WO 2003-JP16017	20031215 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, RU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004198542	A	20040715	JP 2002-364274	20021216 <--
AU 2003288748	A1	20040709	AU 2003-288748	20031215 <--
EP 1573397	A1	20050914	EP 2003-780754	20031215 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK CN 1726434	A	20060125	CN 2003-80106299	20031215 <--
US 20060036023	A1	20060216	US 2005-539037	20050615 <--
PRIORITY APPLN. INFO.:			JP 2002-364274	A 20021216 <--
			US 2002-435284P	P 20021223 <--
			WO 2003-JP16017	W 20031215 <--

OTHER SOURCE(S): MARPAT 141:96711

ED Entered STN: 02 Jul 2004

AB The present invention relates to (1) a photosensitive composition for color
 filter black matrix resists, containing (A) a binder resin having a carboxyl
 group, (B) a compound having an ethylenically unsatd. bond, (C) a photopolymer
 initiator, (D) a thiol compound having two or more mercapto-group-containing

groups in which carbon atoms at the *a*-position and/or *n*-position with respect to the mercapto group have a substituent, and (E) an organic solvent, and having high sensitivity and excellent storage stability; and (2) color filter black matrix resist containing (1) the photosensitive composition for color filter black matrix resists and a black pigment (F).

IT 30400-2P, Butyl methacrylate-glycidyl methacrylate-methacrylic acid-methyl methacrylate copolymer (color filter black matrix resist composition containing)

RN 30400-35-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-oxiranylmethyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 106-91-2

CMF C7 H10 O3



CM 2

CRN 97-88-1

CMF C8 H14 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-00
 ICS G02F001-1335
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 ST printing plate color filter black matrix resist
 compn
 IT Carbon black, uses
 (Raven 1080; color filter black matrix resist
 composition containing)
 IT Light-sensitive materials
 Optical filters
 Resists
 (color filter black matrix resist composition)
 IT Printing plates
 (color filter black matrix resist composition for)
 IT Polymerization
 (photopolymn.; color filter black matrix resist
 composition)
 IT 30400-35-2P, Butyl methacrylate-glycidyl
 methacrylate-methacrylic acid-methyl methacrylate copolymer
 714956-12-4P, Benzyl methacrylate-2-hydroxyethyl
 methacrylate-methacrylic acid-methyl
 methacrylate-2-(methacryloxyethyl isocyanate copolymer
 714956-13-5P, Macromonomer AA 6-NK Ester M 20G-Light Ester DQ
 100-Light Ester DM copolymer
 (color filter black matrix resist composition
 containing)
 IT 149-30-4, 2-Mercaptobenzothiazole 33007-83-9,
 Trimethylolpropane tris(3-mercaptopropionate)
 (color filter black matrix resist composition
 containing)
 IT 590678-00-5P 590678-06-1P 590678-22-1P 645402-18-2P
 (photopolymg. initiator; color filter black
 matrix resist composition containing)
 IT 57-55-6, 1,2-Propylene glycol, reactions 77-99-6, Trimethylolpropane
 89-98-5, o-Chlorobenzaldehyde 3457-48-5, 4,4'-Dimethylbenzil
 4695-31-2, 2-Mercaptobutananoic acid 54051-19-3, 3-
 Mercaptobutananoic acid
 (preparation of photopolymg. initiator for color
 filter black matrix resist composition)
 IT 645402-19-3P
 (preparation of photopolymg. initiator for color
 filter black matrix resist composition)
 IT 108-94-1, Cyclohexanone, uses
 (solvent; color filter black matrix resist
 composition containing)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE
 RE FORMAT

DOCUMENT NUMBER: 141:79433
 TITLE: Photo- and heat-curable polymer compositions, their use as color filters, and liquid crystal displays
 INVENTOR(S): Kaneko, Tomomasa; Ueda, Kenichi
 PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004177498	A	20040624	JP 2002-341066 <--	20021125
PRIORITY APPLN. INFO.:			JP 2002-341066 <--	20021125

ED Entered STN: 25 Jun 2004
 AB The compns. comprise (A) binder resins containing carboxyl groups and/or ester groups, (B) radically polymerizable monomers, (C) photopolylmn. initiators, (D) esterification catalysts and/or ester exchanger catalysts, and (X) compds. having ≥ 2 OH groups or having ≥ 1 OH group(s) and ≥ 1 radically polymerizable double bond(s). Color filters made of the compns. and liquid crystal displays comprising the color filters are also claimed. The color filters prepared from the compns. have high hardness and heat resistance.

IT 709632-22-4P
 (heat- and photocurable polymer compns. for color filters in liquid crystal displays)

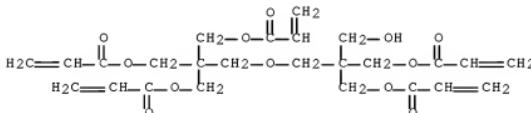
RN 709632-22-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate and 1-phenyl-1H-pyrrole-2,5-dione, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxyl]propyl ester, polymer with 2-[(3-hydroxy-2,2-bis[(1-oxo-2-propenyl)oxy]methyl]propoxylmethyl]-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 60506-81-2

CMF C25 H32 O12



CM 2

CRN 557787-06-1

CMF (C10 H7 N O2 . C5 H8 O2 . C4 H6 O2)x . x C7 H12 O4

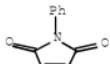
CM 3

CRN 5919-74-4
CMF C7 H12 O4

CM 4

CRN 108602-53-5
CMF (C10 H7 N O2 . C5 H8 O2 . C4 H6 O2)x
CCI PMS

CM 5

CRN 941-69-5
CMF C10 H7 N O2

CM 6

CRN 80-62-6
CMF C5 H8 O2

CM 7

CRN 79-41-4
CMF C4 H6 O2

IC ICM G03F007-004
 ICS C08F290-00; G02B005-20; G02F001-1333; G02F001-1335; G02F001-1339;
 G03F007-027; G03F007-033
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 ST photocurable heat curable polymer compn
 color filter; color filter LCD
 acrylic light heat curable polymer
 IT Liquid crystal displays
 Optical filters
 (heat- and photocurable polymer compns. for color
 filters in liquid crystal displays)
 IT Photoimaging materials
 (photo- and heat-curable; heat- and photocurable polymer compns.
 for color filters in liquid crystal displays)
 IT 13963-57-0, Aluminum tris(acetylacetone)
 (ester exchange catalyst; heat- and photocurable polymer
 compns. for color filters in liquid crystal
 displays)
 IT 709631-64-1P, Dipentaerythritol pentaacrylate-methacrylic acid-methyl
 methacrylate-trimethylolpropane copolymer 709631-65-2P, Cyclohexyl
 methacrylate-dipentaerythritol pentaacrylate-2-ethylhexyl
 methacrylate-methacrylic acid-methyl methacrylate copolymer
 709632-22-4P
 (heat- and photocurable polymer compns. for color
 filters in liquid crystal displays)
 IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone 1707-68-2,
 2,2'-Bis(2-chlorophenyl)-4,4',5,5'-tetraphenylbiimidazole
 (photopolymn. initiator; heat- and photocurable polymer compns. for
 color filters in liquid crystal displays)

L50 ANSWER 14 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:412057 HCPLUS Full-text
 DOCUMENT NUMBER: 140:383249
 TITLE: Photoimaging resin color pastes with decreased ion
 impurities, and color filters
 manufactured from them
 INVENTOR(S): Nishiyama, Masahito; Kubota, Yasuo; Eguchi,
 Masuichi
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

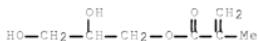
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2004144976	A	20040520	JP 2002-309430 <--	20021024
PRIORITY APPLN. INFO.:			JP 2002-309430 <--	20021024

ED Entered STN: 21 May 2004
 AB The invention relates to pastes with halogen ion content (extracted from the
 pastes by H2O) \leq 50 ppm containing colorants and acrylic polymers having
 unsatd. groups in the side chains, wherein the unsatd. groups are introduced
 to the polymers by reactions in the presence of tertiary amine catalysts.

IT 152324-69-1P, Methacrylic acid-methyl methacrylate-styrene copolymer, ester with glycidyl methacrylate (photoimaging paste containing; acrylic photoimaging color pastes with decreased ion impurities for color filters)
 RN 152324-69-1 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propen-1-yl)oxy]propyl ester (CA INDEX NAME)

CM 1

CRN 5919-74-4
 CMF C7 H12 O4



CM 2

CRN 25035-81-8
 CMF (C8 H8 . C5 H8 O2 . C4 H6 O2)x
 CCI PMS

CM 3

CRN 100-42-5
 CMF C8 H8



CM 4

CRN 80-62-6
 CMF C5 H8 O2



CM 5

CRN 79-41-4
 CMF C4 H6 O2



IC ICM G02B005-20
 ICS C08F008-14; G02B005-22; G02F001-1335; G03F007-004; G03F007-038
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38
 ST photoimaging acrylic paste color filter halogen
 free; tertiary amine catalyst unsatd
 acrylic paste photoimaging; benzylidemethylamine esterification
 catalyst acrylic photoimaging color
 IT Optical filters
 (acrylic photoimaging color pastes with decreased ion
 impurities for color filters)
 IT Photoimaging materials
 (color; acrylic photoimaging color pastes with decreased ion
 impurities for color filters)
 IT Esterification catalysts
 (tertiary amine; acrylic photoimaging color
 pastes with decreased ion impurities for color
 filters)
 IT Amines, uses
 (tertiary, esterification catalyst; acrylic photoimaging
 color pastes with decreased ion impurities for color
 filters)
 IT 106-91-2, Glycidyl methacrylate
 (acrylic photoimaging color pastes with decreased ion impurities
 for color filters)
 IT 147-14-8, Pigment Blue 15:6 14302-13-7, Pigment Green 36
 30125-47-4, Pigment Yellow 138 84632-65-5, Pigment Red 254
 (colorant, photoimaging paste containing; acrylic photoimaging color
 pastes with decreased ion impurities for color
 filters)
 IT 103-83-3, Dimethylbenzylamine 121-44-8, Triethylamine, uses
 (esterification catalyst; acrylic photoimaging color
 pastes with decreased ion impurities for color
 filters)
 IT 152324-69-1P, Methacrylic acid-methyl methacrylate-styrene
 copolymer, ester with glycidyl methacrylate
 (photoimaging paste containing; acrylic photoimaging color pastes with
 decreased ion impurities for color filters)
 IT 29570-58-9, DPBA
 (photoimaging paste containing; acrylic photoimaging color pastes with
 decreased ion impurities for color filters)

L50 ANSWER 15 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2004:179977 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 140:225904
 TITLE: Stable pigment dispersions, color
 filters and their compositions therewith,
 and liquid crystal panels therewith
 INVENTOR(S): Kubota, Yasuo; Kitazawa, Daisuke; Nomura, Shuji;
 Nagase, Akira; Eguchi, Masuichi
 PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004067715	A	20040304	JP 2002-224535	20020801 <--
PRIORITY APPLN. INFO.:			JP 2002-224535	20020801 <--

OTHER SOURCE(S): MARPAT 140:225904

ED Entered STN: 05 Mar 2004

AB The dispersions contain C.I. Pigment Yellow 138, quinophthalone derivs. having polar groups, and macromol. dispersants having basic groups in structure. The quinophthalone derivs. may be represented by Q(XYZ)_n [Q = quinophthalone residue; n = 1-4; X = amido, ether, sulfido, sulfoxido, sulfone; Y = aryl, amino, sulfonato, (CH₂)_mNR₁R₂ (R₁, R₂ = H, alkyl, aryl; m = 1-6)].
 IT 661471-68-7P
 (color filter segments; stable yellow pigment
 dispersions containing polar-group-containing quinophthalones for
 color filters)

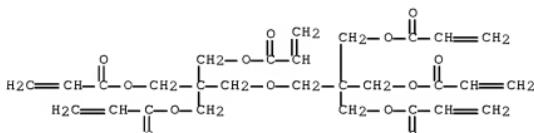
RN 661471-68-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with 2-[(3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl] 1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9

CMF C28 H34 O13



CM 2

CRN 152324-69-1

CMF (C8 H8 . C5 H8 O2 . C4 H6 O2)x . x C7 H12 O4

CM 3

CRN 5919-74-4

CMF C7 H12 O4



CM 4

CRN 25035-81-8
 CMF (C8 H8 . C5 H8 O2 . C4 H6 O2)x
 CCI PMS

CM 5

CRN 100-42-5
 CMF C8 H8



CM 6

CRN 80-62-6
 CMF C5 H8 O2



CM 7

CRN 79-41-4
 CMF C4 H6 O2



IC ICM C09B067-46

CC C09B025-00; C09B067-20; G02B005-20; G02B005-22; G02F001-1335
 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

Section cross-reference(s): 38, 41, 73

ST LCD color filter pigment dispersion stability;
 sulfonated quinophthalone pigment dispersant display filter;
 allylamine polyester dispersant yellow pigment color
 filter

IT Liquid crystal displays
(color; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT Photoimaging materials
(photopolymerizable; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT Polyamines
(polyalkylene-, dispersants; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT Polyesters, preparation
(polyamine-, dispersants; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT Polyamines
(polyester-, dispersants; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT Dispersing agents
Optical filters
(stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT 30125-47-4, Pigment Yellow 138
(Palitol Yellow D 0960; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT 661471-68-7P
(color filter segments; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT 438545-92-7P
(dispersants; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT 9002-98-6DP, Epomin SP 018, reaction products with caprolactone-hydroxystearic acid copolymer 30551-89-4DP, PAA 1LV, reaction products with caprolactone-hydroxystearic acid copolymer 103467-59-0DP, ϵ -Caprolactone-12-hydroxystearic acid copolymer, reaction products with polyallylamines 386254-45-1P 414860-81-4P 414860-89-2P 664330-48-7P
(dispersants; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT 219920-08-8, Solspersc 24000SC 358377-01-2, Ajisper PB 821
(dispersants; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT 8014-95-7, Fuming sulfuric acid
(dispersants; stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

IT 91-63-4, Quinaldine 1823-59-2, 4, 4'-Oxydiphthalic dianhydride 2420-87-3, 3, 3', 4, 4'-Biphenyltetracarboxylic dianhydride 30734-81-7
(stable yellow pigment dispersions containing polar-group-containing quinophthalones for color filters)

TITLE: Stable pigment dispersions, their compositions, color filters therefrom, and liquid crystal panels therewith

INVENTOR(S): Kubota, Yasuo; Kitazawa, Daisuke; Nagase, Akira; Eguchi, Masuchi

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004067714	A	20040304	JP 2002-224534 <--	20020801
PRIORITY APPLN. INFO.:			JP 2002-224534 <--	20020801

OTHER SOURCE(S): MARPAT 140:225903

ED Entered STN: 05 Mar 2004

AB The dispersions comprise pigments, P(NHCOXY)_n [P = pigment residue; X = aryl; n = 1-4; Y = carboxyl, ester, OH, mercapto, amino, sulfonato, (CH₂)_mNR₁R₂ (R₁, R₂ = H, alkyl, aryl; m = 1-6)], and basic group-containing macromol. dispersants. Photopolymerizable compns. containing the dispersions, color filters therefrom, and LCD equipped therewith, are sep. claimed.

IT 661471-68-7P
(color filter segments; stable pigment dispersions containing basic macromol. dispersants and pigment-bound amides for LCD color filters)

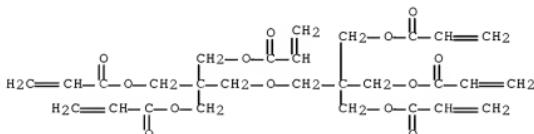
RN 661471-68-7 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with 2-[(3-[(1-oxo-2-propenyl)oxy]-2,2-bis[(1-oxo-2-propenyl)oxy]methyl)2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9

CMF C28 H34 O13



CM 2

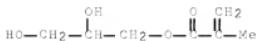
CRN 152324-69-1

10/579,066

CMF (C8 H8 . C5 H8 O2 . C4 H6 O2)x . x C7 H12 O4

CM 3

CRN 5919-74-4
CMF C7 H12 O4



CM 4

CRN 25035-81-8
CMF (C8 H8 . C5 H8 O2 . C4 H6 O2)x
CCI PMS

CM 5

CRN 100-42-5
CMF C8 H8



CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

CRN 79-41-4
CMF C4 H6 O2



IC ICM C09B067-46

ICS B01F017-22; C09B067-20; C09D017-00; G02B005-20; G02B005-22
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 38, 41, 73
 ST LCD color filter pigment dispersion stability;
 polyallylamine caprolactone color filter pigment
 dispersant; pigment bound amide dispersant color
 filter compn
 IT Liquid crystal displays
 (color; stable pigment dispersions containing basic macromol.
 dispersants and pigment-bound amides for LCD color
 filters)
 IT Polyesters, preparation
 (polyamine-, dispersants; stable pigment dispersions containing basic
 macromol. dispersants and pigment-bound amides for LCD
 color filters)
 IT Polyamines
 (polyester-, dispersants; stable pigment dispersions containing basic
 macromol. dispersants and pigment-bound amides for LCD
 color filters)
 IT Dispersing agents
 Optical filters
 (stable pigment dispersions containing basic macromol. dispersants and
 pigment-bound amides for LCD color filters)
 IT 661471-68-7P
 (color filter segments; stable pigment
 dispersions containing basic macromol. dispersants and pigment-bound
 amides for LCD color filters)
 IT 9002-98-6DP, Eponin SP 018, reaction products with
 caprolactone-hydroxystearic acid copolymer 30551-89-4DP, PAA 1LV,
 reaction products with caprolactone-hydroxystearic acid copolymer
 103467-59-0DP, ϵ -Caprolactone-12-hydroxystearic acid
 copolymer, reaction products with polyallylamine 415709-72-7P
 415709-74-9P
 (dispersants; stable pigment dispersions containing basic macromol.
 dispersants and pigment-bound amides for LCD color
 filters)
 IT 358377-01-2, Ajisper PB 821
 (dispersants; stable pigment dispersions containing basic macromol.
 dispersants and pigment-bound amides for LCD color
 filters)
 IT 219920-08-8, Solspperse 24000SC
 (dispersing agents; stable pigment dispersions containing basic
 macromol. dispersants and pigment-bound amides for LCD
 color filters)
 IT 84632-65-5, C.I. Pigment Red 254
 (stable pigment dispersions containing basic macromol. dispersants and
 pigment-bound amides for LCD color filters)
 IT 4051-63-2, C.I. Pigment Red 177 415709-73-8,
 1,4-Diketo-3,6-di(p-aminophenyl)pyrrolo[3,4-c]pyrrole
 (stable pigment dispersions containing basic macromol. dispersants and
 pigment-bound amides for LCD color filters)

L50 ANSWER 17 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:735168 HCPLUS Full-text
 DOCUMENT NUMBER: 139:262286
 TITLE: Compositions for color filter
 protective coatings and protective coatings with
 good flatness and ink-jet coatability
 INVENTOR(S): Baba, Atsushi; Takatori, Masashige; Tanba, Kazuaki

PATENT ASSIGNEE(S): JSR Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003262716	A	20030919	JP 2002-65978 <--	20020311
PRIORITY APPLN. INFO.:			JP 2002-65978 <--	20020311

ED Entered STN: 19 Sep 2003

AB Title compns. comprise (A) copolymers comprising unsatd. carboxylic acids and/or unsatd. carboxylic anhydrides, epoxy-containing unsatd. compds., and olefin type unsatd. compds., (B) cationically polymerizable compds. excepting A, and (C) solvents with b.p. $\geq 180^\circ$ under normal pressure. Thus, styrene 25, methacrylic acid 20, glycidyl methacrylate 45, and tricyclo[5.2.1.0_{2,6}]decan-8-yl methacrylate 10 parts were polymerized to give a copolymer with Mw 6000, 100 parts of which was mixed with Epikote 157865 10, diethylene glycol monobutyl ether acetate 800, γ -glycidoxypropyltrimethoxysilane 15, and SH 28PA surfactant 0.1 parts to give a transparent coating composition, which was applied on a deep glass using an ink-jet device, prebaked at 80° for 5 min, and heated at 230° for 60 min to give a 2.0 μm -thick protective coating with good ink-jet coatability, heat resistance, adhesion, and flatness, and pencil hardness 5H.

IT 405297-68-9P 600737-88-0P 600737-89-1P

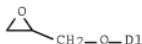
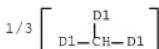
600737-90-4P 600737-91-5P
(compns. for color filter protective coatings
with good flatness)

RN 405297-68-9 HCAPLUS

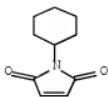
CN 2-Propenoic acid, 2-methyl-, polymer with
1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene,
2,2',2''-[methylidynetris(phenyleneoxymethylene)]tris[oxirane] and
oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 66072-38-6
CMF C28 H28 O6
CCI IDS



CM 2

CRN 1631-25-0
CMF C10 H13 N O2

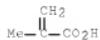
CM 3

CRN 106-91-2
CMF C7 H10 O3

CM 4

CRN 100-42-5
CMF C8 H8

CM 5

CRN 79-41-4
CMF C4 H6 O2

RN 600737-88-0 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with Epikote 157865,
 ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl

2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

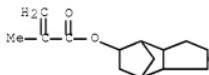
CM 1

CRN 137598-82-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34759-34-7
CMF C14 H20 O2



CM 3

CRN 106-91-2
CMF C7 H10 O3



CM 4

CRN 100-42-5
CMF C8 H8



CM 5

CRN 79-41-4
CMF C4 H6 O2



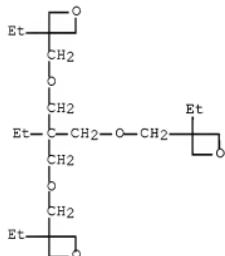
RN 600737-89-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene,
 3,3'-[{2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl}-1,3-
 propanediyl]bis(oxymethylene)bis[3-ethyloxetane],
 octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and
 oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 180423-87-4

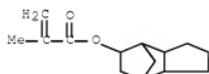
CMF C24 H44 O6



CM 2

CRN 34759-34-7

CMF C14 H20 O2



CM 3

CRN 106-91-2

CMF C7 H10 O3



CM 4

CRN 100-42-5
CMF C8 H8

CM 5

CRN 79-41-4
CMF C4 H6 O2

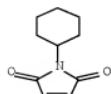
RN 600737-90-4 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with
 1-cyclohexyl-1H-pyrrole-2,5-dione, Epikote 157S65, ethenylbenzene and
 oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 137598-82-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1631-25-0
CMF C10 H13 N O2

CM 3

CRN 106-91-2
CMF C7 H10 O3

CM 4

CRN 100-42-5
CMF C8 H8

CM 5

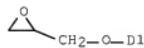
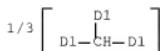
CRN 79-41-4
CMF C4 H6 O2

RN 600737-91-5 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene,
2,2',2''-[methylidynetris(phenyleneoxymethylene)]tris[oxirane],
octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and
oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

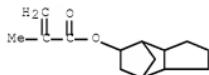
CM 1

CRN 66072-38-6
CMF C28 H28 O6
CCI IDS



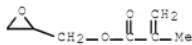
CM 2

CRN 34759-34-7
 CMF C14 H20 O2



CM 3

CRN 106-91-2
 CMF C7 H10 O3



CM 4

CRN 100-42-5
 CMF C8 H8



CM 5

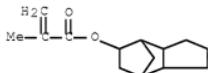
CRN 79-41-4
CMF C4 H6 O2



IT 157015-57-1P, Glycidyl methacrylate-methacrylic acid-styrene-tricyclo[5.2.1.0_{2,6}]decane-8-yl methacrylate copolymer 405297-65-6P, N-Cyclohexyl maleimide-glycidyl methacrylate-methacrylic acid-styrene copolymer (intermediate; compns. for color filter protective coatings with good flatness)
 RN 157015-57-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and 2-oxiranylmethyl 2-methyl-2-propenoate (CA INDEX NAME)

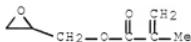
CM 1

CRN 34759-34-7
CMF C14 H20 02



CM 2

CRN 106-91-2
CMF C7 H10 O3



CM 3

CRN 100-42-5
CMF C8 H8



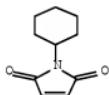
CM 4

CRN 79-41-4
CMF C4 H6 O2

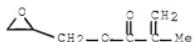
RN 405297-65-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene and 2-oxiranylmethyl
2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 1631-25-0
CMF C10 H13 N O2

CM 2

CRN 106-91-2
CMF C7 H10 O3

CM 3

CRN 100-42-5
CMF C8 H8

CM 4

CRN 79-41-4
CMF C4 H6 O2

IC ICM G02B005-20
 ICS C08J005-18; C08L033-14; C08L063-00
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 73, 74
 ST compn color filter protective coating flatness ink
 jet coatability; styrene methacrylic acid tricyclodecanyl methacrylate
 methacrylate glycidyl methacrylate copolymer; Epikote carboxy contg
 copolymer coating compn
 IT Epoxy resins, uses
 (acrylic; compns. for color filter protective
 coatings with good flatness)
 IT Coating materials
 Optical filters
 (compns. for color filter protective coatings
 with good flatness)
 IT Polymerization catalysts
 (ring-opening; compns. for color filter
 protective coatings with good flatness)
 IT 405297-68-9P 600737-88-0P 600737-89-1P
 600737-90-4P 600737-91-5P
 (compns. for color filter protective coatings
 with good flatness)
 IT 157015-57-1P, Glycidyl methacrylate-methacrylic
 acid-styrene-tricyclo[5.2.1.0^{2,6}]decan-8-yl methacrylate copolymer
 405297-65-6P, N-Cyclohexyl maleimide-glycidyl
 methacrylate-methacrylic acid-styrene copolymer
 (intermediate; compns. for color filter
 protective coatings with good flatness)
 IT 66003-78-9, Triphenylsulfonium trifluoromethanesulfonate 138399-10-7
 (polymerization catalyst; compns. for color
 filter protective coatings with good flatness)

L50 ANSWER 18 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:653451 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:188421
 TITLE: Photopolymerizable compositions having good
 developability and solubility and their
 color filters
 INVENTOR(S): Tanigawa, Keiko
 PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003233179	A	20030822	JP 2002-31338 <--	20020207
JP 4019726	B2	20071212	JP 2002-31338 <--	20020207
PRIORITY APPLN. INFO.:				

ED Entered STN: 22 Aug 2003
 AB The compns. contain (A) photopolymn. initiators, (B) binder resins bearing structures prepared by addition of carboxylic acid sites of carboxylic acid-containing resins with epoxy sites of compds. bearing ethylenically unsatd. groups and epoxy groups represented by $\text{EpCH}_2\text{OR}_1\text{OCCR}_2\text{CH}_2$ (Ep = epoxy, R₁ = divalent linkage; R₂ = H, Me), preferably, 4-hydroxybutyl acrylate glycidyl ether, and optionally (C) photopolymn. initiators and (D) colorants. Even when colorant concentration is high, the compns. have good developability, high adhesion strength to substrates or light-shielding layers, and good surface lubricity.
 IT 581070-18-0P, Acrylic acid- α -methylstyrene-styrene copolymer ester with 4-hydroxybutyl acrylate glycidyl ether
 581070-19-1P
 (binder; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters
)
 RN 581070-18-0 HCPLUS
 CN 2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene, 2-hydroxy-3-[4-[(1-oxo-2-propenyl)oxy]butoxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 251298-12-1
CMF C10 H18 O5

CM 2

CRN 52831-04-6
CMF (C₉ H₁₀ . C₈ H₈ . C₃ H₄ O₂)_x
CCI PMS

CM 3

CRN 100-42-5
CMF C₈ H₈

CM 4

CRN 98-83-9
CMF C9 H10

CM 5

CRN 79-10-7
CMF C3 H4 O2

RN 581070-19-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and phenylmethyl
2-methyl-2-propenoate, 2-hydroxy-3-[4-((1-oxo-2-
propenyl)oxy)butoxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 251298-12-1
CMF C10 H18 O5

CM 2

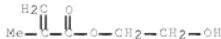
CRN 191545-17-2
CMF (C11 H12 O2 . C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x
CCI PMS

CM 3

CRN 2495-37-6
CMF C11 H12 O2



CM 4

CRN 868-77-9
CMF C6 H10 O3

CM 5

CRN 80-62-6
CMF C5 H8 O2

CM 6

CRN 79-41-4
CMF C4 H6 O2

IT 581070-20-4P, Acrylic acid- α -methylstyrene-styrene copolymer ester with 4-hydroxybutyl acrylate glycidyl ether, polymer with dipentaerythritol hexaacrylate 581070-21-5P, Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer ester with 4-hydroxybutyl acrylate glycidyl ether, polymer with dipentaerythritol hexaacrylate (crosslinked; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

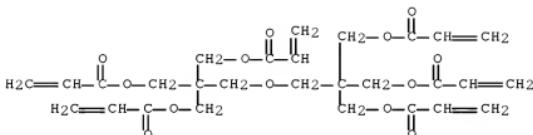
RN 581070-20-4 HCPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene and (1-methylethenyl)benzene, 2-hydroxy-3-[4-[(1-oxo-2-propenyl)oxy]butoxyl]propyl ester, polymer with 2-[(3-[(1-oxo-2-propenyl)oxy]-2,2-bis[(1-oxo-2-

propenyl)oxy]methyl]propoxy]methyl]-2-[(1-oxo-2-propenyl)oxy]methyl]-
1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



CM 2

CRN 581070-18-0
CMF C10 H18 O5 . x (C9 H10 . C8 H8 . C3 H4 O2)x

CM 3

CRN 251298-12-1
CMF C10 H18 O5



CM 4

CRN 52831-04-6
CMF (C9 H10 . C8 H8 . C3 H4 O2)x
CCI PMS

CM 5

CRN 100-42-5
CMF C8 H8



CM 6

CRN 98-83-9
CMF C9 H10



CM 7

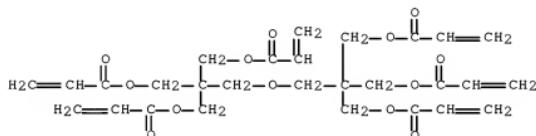
CRN 79-10-7
CMF C3 H4 O2



RN 581070-21-5 HCPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and phenylmethyl
2-methyl-2-propenoate, 2-hydroxy-3-[4-[(1-oxo-2-
propenyl)oxy]butoxyl]propyl ester, polymer with
2-[(3-[(1-oxo-2-propenyl)oxy]-2,2-bis[(1-oxo-2-
propenyl)oxy]methyl)propoxyl]methyl]-2-[(1-oxo-2-propenyl)oxy]methyl)-
1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



CM 2

CRN 581070-19-1
CMF (C11 H12 O2 . C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x . x C10 H18 O5

CM 3

CRN 251298-12-1
CMF C10 H18 O5



CM 4

CRN 191545-17-2

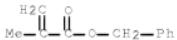
CMF (C11 H12 O2 . C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 5

CRN 2495-37-6

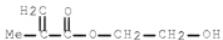
CMF C11 H12 O2



CM 6

CRN 868-77-9

CMF C6 H10 O3



CM 7

CRN 80-62-6

CMF C5 H8 O2



CM 8

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-027
 ICS C08F290-12; G02B005-20; G03F007-004

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST epoxy acrylate addn acrylic polymer color resist; color filter epoxy acrylate addn acrylic polymer

IT Phenolic resins, reactions
 (epoxy, novolak, o-cresol, acrylate, tetrahydrophthalate, ester with 4-hydroxybutyl acrylate glycidyl ether, binder; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

IT Optical filters
 (high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

IT Epoxy resins, reactions
 (phenolic, novolak, o-cresol, acrylate, tetrahydrophthalate, ester with 4-hydroxybutyl acrylate glycidyl ether, binder; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

IT 85-43-8DP, Tetrahydrophthalic anhydride, ester with o-cresol novolak epoxy acrylate, reaction products with 4-hydroxybutyl acrylate glycidyl ether 95-48-7DP, o-Cresol, novolak epoxy acrylate tetrahydrophthalate, ester with 4-hydroxybutyl acrylate glycidyl ether, ester with o-cresol novolak epoxy acrylate tetrahydrophthalate 119692-59-0DP, 4-Hydroxybutyl acrylate glycidyl ether, ester with o-cresol novolak epoxy acrylate tetrahydrophthalate 581070-18-0P, Acrylic acid- α -methylstyrene-styrene copolymer ester with 4-hydroxybutyl acrylate glycidyl ether 581070-19-1P
 (binder; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters
)

IT 581070-20-4P, Acrylic acid- α -methylstyrene-styrene copolymer ester with 4-hydroxybutyl acrylate glycidyl ether, polymer with dipentaerythritol hexaacrylate 581070-21-5P, Benzyl methacrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer ester with 4-hydroxybutyl acrylate glycidyl ether, polymer with dipentaerythritol hexaacrylate
 (crosslinked; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

IT 29570-58-9, Dipentaerythritol hexaacrylate
 (high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

IT 492-98-8, 2,2'-Biimidazole 125051-32-3, CGI 784
 (photopolyrn. initiator; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone
 (photosensitizer; high colorant concentration photopolymerizable compns. having good developability and solubility for color filters)

L50 ANSWER 19 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:506812 HCPLUS Full-text
 DOCUMENT NUMBER: 139:86734
 TITLE: Oxide-containing particles, their compositions,
 and their protective coatings for optical devices
 INVENTOR(S): Yamada, Yoshitaka; Baba, Atsushi; Takatori,
 Masahige; Tanba, Kazuaki
 PATENT ASSIGNEE(S): JSR Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003183537	A	20030703	JP 2001-385003 <--	20011218
JP 3893966	B2	20070314		
TW 225881	B	20050101	TW 2002-91124109 <--	20021018
CN 1427043	A	20030702	CN 2002-157900 <--	20021218
CN 1283709	C	20061108		
PRIORITY APPLN. INFO.:			JP 2001-385003 <--	A 20011218

ED Entered STN: 03 Jul 2003

AB The compns. comprise (A) particles prepared by reaction of (a) ≥ 1 element oxide particle chosen from Si, Al, Zr, Ti, Zn, Ge, In, Sn, Sb, and Ce and (b) ≥ 1 compound chosen from [R1X(CH2)mO(CH2)n]qSiR2rR34-q-r, [R1X(CH2)mO(CH2)nO(CH2)p]qSiR2rR34-q-r, (YR4)qSiR2rR34-q-r, and (GR4)qSiR2rR34-q-r [X = oxetane; Y = 3,4-epoxycyclohexyl; G = glycidyl; R1 = H, alkyl, F, fluoroalkyl, allyl, aryl, furyl, ethynyl; R2 = hydrolyzable group; R3 = alkyl; R4 = divalent organic group; m, n, p = 1-10; q, r = 1-3; (q + r) \leq 4], (B) copolymers prepared from (c) epoxy-containing unsatd. compdps. and (d) olefin-based unsatd. compdps., and (C) other cationically polymerizable compdps. Thus, a composition containing (A) 40 parts particles prepared by reaction of MEK ST (silica soil) and Sila-Ace S 510 (γ -glycidoxypropyltrimethoxysilane), (B) 100 parts glycidyl methacrylate-styrene copolymer, (C) 10 parts Epikote 157S65 (bisphenol A novolak epoxy resin), and (D) 35 parts trimellitic anhydride was applied on a glass plate and baked to give a coating with high transparency, improved adhesion, and pencil hardness 6H.

IT 157015-57-1P, Glycidyl methacrylate-methacrylic acid-styrene-tricyclo[5.2.1.0^{2,6}]decane-8-yl methacrylate copolymer 405297-65-6P, N-Cyclohexylmaleimide-glycidyl methacrylate-methacrylic acid-styrene copolymer (polymer compns. containing oxide-containing particles for protective coatings of optical devices)

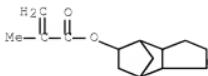
RN 157015-57-1 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and 2-oxiranylmethyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 34759-34-7

CMF C14 H20 O2



CM 2

CRN 106-91-2
CMF C7 H10 O3

CM 3

CRN 100-42-5
CMF C8 H8

CM 4

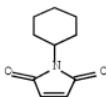
CRN 79-41-4
CMF C4 H6 O2

RN 405297-65-6 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene and 2-oxiranylmethyl
2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 1631-25-0
CMF C10 H13 N O2



CM 2

CRN 106-91-2
CMF C7 H10 O3

CM 3

CRN 100-42-5
CMF C8 H8

CM 4

CRN 79-41-4
CMF C4 H6 O2

IT 552867-46-6P 552867-47-7P 552867-48-8P
 552867-49-9P 552867-50-2P 552867-51-3P
 552867-52-4P 552889-25-5P
 (protective coatings containing oxide-containing particles of optical devices)
 RN 552867-46-6 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with Epikote 157S65,
 ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl
 2-methyl-2-propenoate, oxiranyl methyl 2-methyl-2-propenoate, silica

and trimethoxy[3-(oxiranylmethoxy)propyl]silane (9CI) (CA INDEX NAME)

CM 1

CRN 137598-82-4

CMF Unspecified

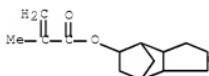
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34759-34-7

CMF C14 H20 O2



CM 3

CRN 7631-86-9

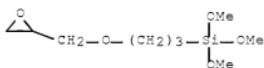
CMF O2 Si



CM 4

CRN 2530-83-8

CMF C9 H20 O5 Si



CM 5

CRN 106-91-2

CMF C7 H10 O3



CM 6

CRN 100-42-5
CMF C8 H8

CM 7

CRN 79-41-4
CMF C4 H6 O2

RN 552867-47-7 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with
 1-cyclohexyl-1H-pyrrole-2,5-dione, Epikote 157865, ethenylbenzene,
 oxiranylmethyl 2-methyl-2-propenoate, silica and
 trimethoxy[3-(oxiranylmethoxy)propyl]silane (9CI) (CA INDEX NAME)

CM 1

CRN 137598-82-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

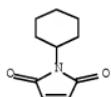
CRN 7631-86-9
CMF O2 Si

CM 3

CRN 2530-83-8
 CMF C9 H20 O5 Si



CM 4
 CRN 1631-25-0
 CMF C10 H13 N O2



CM 5
 CRN 106-91-2
 CMF C7 H10 O3



CM 6
 CRN 100-42-5
 CMF C8 H8



CM 7
 CRN 79-41-4

CMF C4 H6 O2



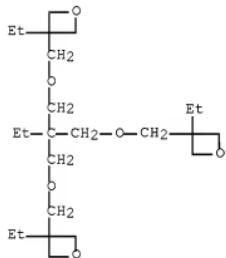
RN 552867-48-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
 1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene,
 3,3'-[{2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl}-1,3-
 propanediyl]bis(oxymethylene)bis[3-ethyloxetane], oxiranylmethyl
 2-methyl-2-propenoate, silica and
 trimethoxy[2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl]silane (9CI) (CA
 INDEX NAME)

CM 1

CRN 180423-87-4

CMF C24 H44 O6



CM 2

CRN 7631-86-9

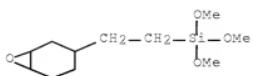
CMF O2 Si



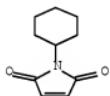
CM 3

CRN 3388-04-3

CMF C11 H22 O4 Si



CM 4

CRN 1631-25-0
CMF C10 H13 N O2

CM 5

CRN 106-91-2
CMF C7 H10 O3

CM 6

CRN 100-42-5
CMF C8 H8

CM 7

CRN 79-41-4
CMF C4 H6 O2



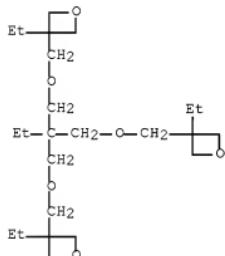
RN 552867-49-9 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene,
 3,3'-[{2-ethyl-2-[(3-ethyl-3-oxetanyl)methoxy]methyl}-1,3-
 propanediyl]bis(oxymethylene)bis[3-ethylloxetane],
 octahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate,
 oxiranylmethyl 2-methyl-2-propenoate,
 trimethoxy[3-(oxiranylmethoxy)propyl]silane and zirconium oxide (ZrO₂)
 (9CI) (CA INDEX NAME)

CM 1

CRN 180423-87-4

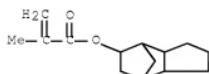
CMF C24 H44 O6



CM 2

CRN 34759-34-7

CMF C14 H20 O2



CM 3

CRN 2530-83-8

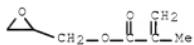
CMF C9 H20 O5 Si



CM 4

CRN 1314-23-4
CMF O₂ Zr

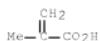
CM 5

CRN 106-91-2
CMF C₇ H₁₀ O₃

CM 6

CRN 100-42-5
CMF C₈ H₈

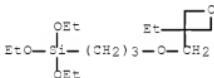
CM 7

CRN 79-41-4
CMF C₄ H₆ O₂

RN 552867-50-2 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with Epikote 157S65,
 ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl
 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate,
 triethoxy[3-[(3-ethyl-3-oxetanyl)methoxy]propyl]silane and zirconium
 oxide (ZrO₂) (9CI) (CA INDEX NAME)

CM 1

CRN 220520-33-2
 CMF C15 H32 O5 Si



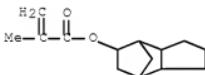
CM 2

CRN 137598-82-4
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 34759-34-7
 CMF C14 H20 O2



CM 4

CRN 13114-23-4
 CMF O2 Zr



CM 5

CRN 106-91-2
CMF C7 H10 O3

CM 6

CRN 100-42-5
CMF C8 H8

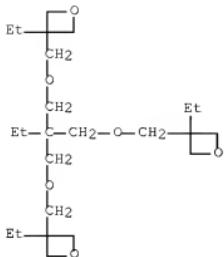
CM 7

CRN 79-41-4
CMF C4 H6 O2

RN 552867-51-3 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with
 1-cyclohexyl-1H-pyrrole-2,5-dione, ethenylbenzene,
 3,3'-[{2-ethyl-2-[(3-ethyl-3-octanyl)methoxy]methyl}-1,3-
 propanediyl]bis(oxyethylene)bis[3-ethyloxetane], oxiranylmethyl
 2-methyl-2-propenoate, silica and
 trimethoxy[3-(oxiranylmethoxy)propyl]silane (9CI) (CA INDEX NAME)

CM 1

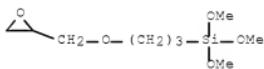
CRN 180423-87-4
CMF C24 H44 O6



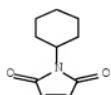
CM 2

CRN 7631-86-9
CMF O2 Si

CM 3

CRN 2530-83-8
CMF C9 H20 O5 Si

CM 4

CRN 1631-25-0
CMF C10 H13 N O2

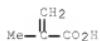
CM 5

CRN 106-91-2
CMF C7 H10 O3

CM 6

CRN 100-42-5
CMF C8 H8

CM 7

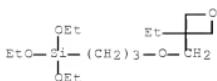
CRN 79-41-4
CMF C4 H6 O2

RN 552867-52-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with
1-cyclohexyl-1H-pyrrole-2,5-dione, Epikote 157S65, ethenylbenzene,
oxiranylmethyl 2-methyl-2-propenoate, silica and
triethoxy[3-[(3-ethyl-3-oxetanyl)methoxy]propyl]silane (9CI) (CA
INDEX NAME)

CM 1

CRN 220520-33-2
CMF C15 H32 O5 Si



CM 2

CRN 137598-82-4
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

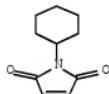
CM 3

CRN 7631-86-9
 CMF O2 Si



CM 4

CRN 1631-25-0
 CMF C10 H13 N O2



CM 5

CRN 106-91-2
 CMF C7 H10 O3



CM 6

CRN 100-42-5
CMF C8 H8

CM 7

CRN 79-41-4
CMF C4 H6 O2

RN 552889-25-5 HCPLUS

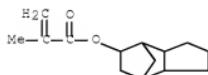
CN 2-Propenoic acid, 2-methyl-, polymer with aluminum oxide (Al2O3),
Epikote 157865, ethenylbenzene, octahydro-4,7-methano-1H-inden-5-yl
2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and
trimethoxy[3-(oxiranylmethoxy)propyl]silane (9CI) (CA INDEX NAME)

CM 1

CRN 137598-82-4
CMF Unspecified
CCI PMS, MAN

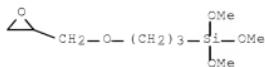
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 34759-34-7
CMF C14 H20 O2

CM 3

CRN 2530-83-8
CMF C9 H20 O5 Si



CM 4

CRN 1344-28-1
 CMF Al2 O3
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 106-91-2
 CMF C7 H10 O3



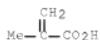
CM 6

CRN 100-42-5
 CMF C8 H8



CM 7

CRN 79-41-4
 CMF C4 H6 O2



IC ICM C09C001-00
 ICS C08K005-151; C08K009-06; C08L101-06; C09C003-12; C09D007-12;
 C09D133-00; C09D201-06; G02F001-1333
 CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38, 73
 IT Hybrid organic-inorganic materials
 Optical filters
 Optical instruments
 (protective coatings containing oxide-containing particles of optical devices)
 IT 25167-42-4P, Glycidyl methacrylate-styrene copolymer 147814-52-6P,
 Glycidyl methacrylate-tricyclo[5.2.1.02,6]decan-8-yl methacrylate
 copolymer 157815-57-1P, Glycidyl methacrylate-methacrylic
 acid-styrene-tricyclo[5.2.1.02,6]decan-8-yl methacrylate copolymer
 405297-65-6P, N-Cyclohexylmaleimide-glycidyl
 methacrylate-methacrylic acid-styrene copolymer
 (polymer compns. containing oxide-containing particles for protective
 coatings of optical devices)
 IT 552867-39-7P 552867-40-0P 552867-41-1P 552867-42-2P
 552867-43-3P 552867-44-4P 552867-45-5P 552867-46-6P
 552867-47-7P 552867-48-8P 552867-49-9P
 552867-50-2P 552867-51-3P 552867-52-4P
 552889-24-4P 552889-25-5P
 (protective coatings containing oxide-containing particles of optical
 devices)

L50 ANSWER 20 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2003:471005 HCAPLUS Full-text

DOCUMENT NUMBER: 139:44227

TITLE: Light-sensitive curable pattern forming resin in
 hardenable resin composition for spacers and for
 color filters in liquid crystal
 display

INVENTOR(S): Maeda, Keiji; Okazaki, Eiichi; Taguchi, Hirokane;
 Hasegawa, Mitsutaka; Hayashi, Shinji; Sega,
 Shunsuke

PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan; Dai
 Nippon Printing Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
 CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

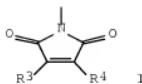
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003173025	A	20030620	JP 2002-181719 <--	20020621
JP 4014946	B2	20071128		
US 20030118922	A1	20030626	US 2002-255353 <--	20020926
US 7399574	B2	20080715		
PRIORITY APPLN. INFO.:			JP 2001-304411 <--	A 20010928
			JP 2002-108254 <--	A 20020410
			JP 2002-181719 <--	A 20020621

ED Entered STN: 20 Jun 2003

GI



AB The title resin is copolymer having repeating units of cyclic imides, repeating units of acidic groups, and repeating groups of photopolymerizable groups, wherein the cyclic polyimide is represented with general formula I (R3-4 = C₁-C₄ alkyl, H, cyclic ring residue). The resin provides control on solubility in an alkaline and on hardening properties.

IT 544416-50-4P, N-(2-Methacryloyloxyethyl)tetrahydrophthalimide/methacrylic acid copolymer, glycidyl methacrylate ester 544416-52-6P, N-(2-Acryloyloxyethyl)tetrahydrophthalimide-methacrylic acid copolymer, glycidyl methacrylate ester (light-sensitive curable pattern forming resin in hardenable resin composition for color filters in liquid crystal display)

RN 544416-50-4 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 77945-63-2

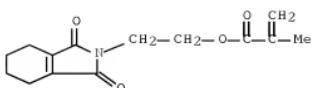
CMF (C14 H17 N O4 . C4 H6 O2)x

CCI PMS

CM 3

CRN 77945-62-1

CMF C14 H17 N O4



CM 4

CRN 79-41-4
CMF C4 H6 O2

RN 544416-52-6 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with
 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isindol-2-yl)ethyl
 2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester
 (9CI) (CA INDEX NAME)

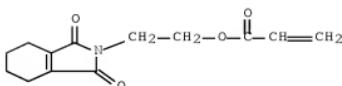
CM 1

CRN 5919-74-4
CMF C7 H12 O4

CM 2

CRN 544416-51-5
CMF (C13 H15 N O4 . C4 H6 O2)x
CCI PMS

CM 3

CRN 125350-99-4
CMF C13 H15 N O4

CM 4

CRN 79-41-4
CMF C4 H6 O2

IC ICM G03F007-038
 ICS C08F299-00; G02B005-20; G02F001-1335; G02F001-1339; G03F007-004
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)
 Section cross-reference(s): 35
 ST resin hardenable compn spacer color filter liq
 crystal display
 IT Liquid crystal displays
 Optical filters
 (light-sensitive curable pattern forming resin in hardenable resin
 composition for color filters in liquid crystal
 display)
 IT Photoimaging materials
 (photopolymerizable; light-sensitive curable pattern forming resin
 in hardenable resin composition for color filters in
 liquid crystal display)
 IT Photoimaging materials
 (resin; light-sensitive curable pattern forming resin in hardenable
 resin composition for color filters in liquid crystal
 display)
 IT 30674-80-7DP, reaction product with acrylic polymer 543736-91-0DP,
 N-(2-Methacryloyloxyethyl)tetrahydrophthalimide-methacrylic
 acid-2-hydroxyethyl methacrylate copolymer, reaction product with
 methacryloyloxyethyl isocyanate 543736-91-0P,
 N-(2-Methacryloyloxyethyl)tetrahydrophthalimide-methacrylic
 acid-2-hydroxyethyl methacrylate copolymer 544416-50-4P,
 N-(2-Methacryloyloxyethyl)tetrahydrophthalimide/methacrylic acid
 copolymer, glycidyl methacrylate ester
 544416-52-6P, N-(2-Acryloyloxyethyl)tetrahydrophthalimide-
 methacrylic acid copolymer, glycidyl methacrylate
 ester
 (light-sensitive curable pattern forming resin in hardenable resin
 composition for color filters in liquid crystal
 display)

L50 ANSWER 21 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:944730 HCPLUS Full-text

DOCUMENT NUMBER: 138:31096

TITLE: Lactone ring-containing polymers, their
 manufacture, and their use in photopolymer
 compositions for color filters
 and display devices

INVENTOR(S): Kaneko, Tomomasa; Asano, Hideo; Yamaguchi, Minoru;
 Ueda, Kenichi; Yoshida, Masatoshi; Kataoka, Shingo

PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002356520	A	20021213	JP 2002-6713	20020115

PRIORITY APPLN. INFO.: JP 2001-93427 A 20010328
 <-->--

ED Entered STN: 13 Dec 2002

AB The polymers having radical-polymerizable double bonds in side chains are manufactured by addition-reacting acid groups of lactone ring-containing polymers consisting of 2-(hydroxyalkyl) acrylate esters and acid group-containing monomers with radical-polymerizable double bond-containing compds. having functional groups reactable with the acid groups. The photopolymer compns. containing the above polymers in post-baking process do not show soiling of substrates, smoothness decrease, thickness decrease, or discoloration and do give uniform films with high strength.

IT 478167-88-3P, Ethyl 2-(hydroxymethyl)acrylate-methacrylic acid-methyl methacrylate copolymer glycidyl methacrylate ester 478167-89-4P, Ethyl 2-(hydroxymethyl)acrylate-methacrylic acid copolymer glycidyl methacrylate ester 478167-90-7P, Methacrylic acid-methyl methacrylate-methyl 2-(hydroxymethyl)acrylate copolymer glycidyl methacrylate ester (manufacture of lactone ring-containing photopolymers for color filters and displays)

RN 478167-88-3 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-, ethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxyl]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 444753-51-9

CMF (C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 3

CRN 10029-04-6

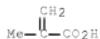
CMF C6 H10 O3



CM 4

CRN 80-62-6
CMF C5 H8 O2

CM 5

CRN 79-41-4
CMF C4 H6 O2

RN 478167-89-4 HCAPLUS
 CN 2-Propenoic acid, 2-(hydroxymethyl)-, ethyl ester, polymer with
 2-methyl-2-propenoic acid, 2-hydroxy-3-[(2-methyl-1-oxo-2-
 propenyl)oxyl]propyl ester (9CI) (CA INDEX NAME)

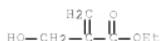
CM 1

CRN 5919-74-4
CMF C7 H12 O4

CM 2

CRN 218767-65-8
CMF (C6 H10 O3 . C4 H6 O2) x
CCI PMS

CM 3

CRN 10029-04-6
CMF C6 H10 O3

CM 4

CRN 79-41-4
CMF C4 H6 O2

RN 478167-90-7 HCAPLUS
 CN 2-Propenoic acid, 2-(hydroxymethyl)-, methyl ester, polymer methyl
 2-methyl-2-propenoate and 2-methyl-2-propenoic acid,
 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA
 INDEX NAME)

CM 1

CRN 5919-74-4
CMF C7 H12 O4

CM 2

CRN 400709-67-3
CMF (C5 H8 O3 . C5 H8 O2 . C4 H6 O2)x
CCI PMS

CM 3

CRN 15484-46-5
CMF C5 H8 O3

CM 4

CRN 80-62-6
CMF C5 H8 O2

CM 5

CRN 79-41-4
CMF C4 H6 O2

IC ICM C08F220-28
 ICS C08F008-00; C08F290-12; G02B001-04; G02B005-20; G03F007-038
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 ST lactone ring photopolymer color filter display
 device; hydroxyalkyl acrylate polymer addn double bond photopolymer
 IT Liquid crystal displays
 (color; manufacture of lactone ring-containing photopolymers for
 color filters and displays)
 IT Optical filters
 Photoresists
 (manufacture of lactone ring-containing photopolymers for color
 filters and displays)
 IT 400709-67-3DP, isopropenylloxazoline ester 478167-88-3P,
 Ethyl 2-(hydroxymethyl)acrylate-methacrylic acid-methyl methacrylate
 copolymer glycidyl methacrylate ester
 478167-89-4P, Ethyl 2-(hydroxymethyl)acrylate-methacrylic acid
 copolymer glycidyl methacrylate ester
 478167-90-7P, Methacrylic acid-methyl methacrylate-methyl
 2-(hydroxymethyl)acrylate copolymer glycidyl methacrylate
 ester
 (manufacture of lactone ring-containing photopolymers for color
 filters and displays)
 IT 15625-89-5, Trimethylolpropane triacrylate
 (photopolymer composition containing; manufacture of lactone ring-
 containing
 photopolymers for color filters and displays)

DOCUMENT NUMBER:

137:270690

TITLE:

Photosensitive solventless adhesive compositions
with light scattering properties for color
filters and transfer-type color
filters therewith

INVENTOR(S):

Kawashima, Masayuki; Maeda, Tadatoshi; Hoshi,
Hisao; Hirayama, Shigeru; Suda, Hironobu;
Nishimoto, Toyoshi

PATENT ASSIGNEE(S):

Toppan Printing Co., Ltd., Japan
Jpn. Kokai Tokkyo Koho, 8 pp.

SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002275432	A	20020925	JP 2001-82464 ----- <--	20010322
PRIORITY APPLN. INFO.:			JP 2001-82464 ----- <--	20010322

ED Entered STN: 25 Sep 2002

AB Title compns. comprise acrylic type-resins with ethylenically unsatd. groups and carboxyl groups, diluent monomers, photosensitizers, and transparent particles. The filters are especially useful for reflection-type liquid crystal displays. Thus, an adhesive composition comprising glycidyl methacrylate-Me methacrylate copolymer acrylic acid tetrahydrophthalic anhydride ester (preparation given) 50, TMP 3A 50, hydroxyethyl methacrylate 40, 1,6-hexanediol dimethacrylate 40, Viscoat 2000 10, 1-hydroxycyclohexyl Ph ketone 10, metoquinone 0.1, glycidyloxypropyltrimethoxysilane 10, bisphenol A diglycidyl ether 15, and Tospearl 120 40 g was applied on a transfer sheet comprising a color filter layer and a light blocking layer, irradiated with UV using a photomask, an extra adhesive was removed by an alkali solution, and post-baked to give a transfer-type color filter.

IT 163658-81-9P

(photosensitive solventless adhesive compns. with light scattering properties for color filters)

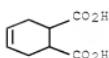
RN 163658-81-9 HCPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate, hydrogen 4-cyclohexene-1,2-dicarboxylate 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 88-98-2

CMF C8 H10 O4



CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

CRN 26141-88-8
 CMF (C7 H10 O3 . C5 H8 O2)x
 CCI PMS

CM 4

CRN 106-91-2
 CMF C7 H10 O3



CM 5

CRN 80-62-6
 CMF C5 H8 O2



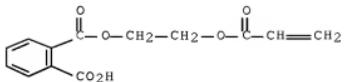
IT 461650-85-1P, Glycidyl methacrylate-methyl methacrylate copolymer ester with acrylic acid and tetrahydrophthalic anhydride, polymer with trimethylolpropane trimethacrylate, hydroxyethyl methacrylate, 1,6-hexanediol dimethacrylate, Viscoat 2000, glycidyloxypropyltrimethoxysilane and bisphenol A diglycidyl ether (photosensitive solventless adhesive compns. with light scattering properties for color filters)

RN 461650-85-1 HCAPLUS

CN 1,2-Benzene dicarboxylic acid, mono[2-[(1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 2-ethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl bis(2-methyl-2-propenoate), 1,6-hexanediyl bis(2-methyl-2-propenoate), 2-hydroxyethyl 2-methyl-2-propenoate, 2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane], methyl 2-methyl-2-propenoate polymer with oxiranymethyl 2-methyl-2-propenoate 4-cyclohexene-1,2-dicarboxylate 2-propenoate, and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 30697-40-6
CMF C13 H12 06



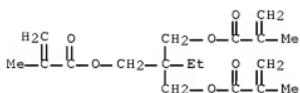
CM 2

CRN 6606-59-3
CMF C14 H22 O4



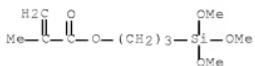
CM 3

CRN 3290-92-4
CMF C18 H26 06

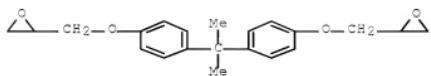


CM 4

CRN 2530-85-0
CMF C10 H20 O5 Si



CM 5

CRN 1675-54-3
CMF C21 H24 O4

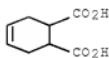
CM 6

CRN 868-77-9
CMF C6 H10 O3

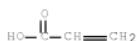
CM 7

CRN 163658-81-9
CMF C8 H10 O4 . x (C7 H10 O3 . C5 H8 O2)x . x C3 H4 O2

CM 8

CRN 88-98-2
CMF C8 H10 O4

CM 9

CRN 79-10-7
CMF C3 H4 O2

CM 10

CRN 26141-88-8
 CMF (C₇ H₁₀ O₃ . C₅ H₈ O₂)_x
 CCI PMS

CM 11

CRN 106-91-2
 CMF C₇ H₁₀ O₃



CM 12

CRN 80-62-6
 CMF C₅ H₈ O₂



IC ICM C09J004-00
 ICS C09J011-00; C09J157-00; G02B005-02; G02B005-20; G02F001-1335
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 ST photosensitive solventless acrylic adhesive light scattering
 color filter prep; acrylic optical filter adhesive
 reflection type liq crystal display
 IT Silsesquioxanes
 (Me, Tospearl 120, transparent particles; photosensitive
 solventless adhesive compns. with light scattering properties for
 color filters)
 IT Adhesives
 (photocurable; photosensitive solventless adhesive compns. with
 light scattering properties for color filters)
 IT Optical filters
 (photosensitive solventless adhesive compns. with light scattering
 properties for color filters)
 IT 163658-81-9P
 (photosensitive solventless adhesive compns. with light scattering
 properties for color filters)
 IT 461650-85-1P, Glycidyl methacrylate-methyl methacrylate
 copolymer ester with acrylic acid and tetrahydrophthalic anhydride,
 polymer with trimethylolpropane trimethacrylate, hydroxyethyl

methacrylate, 1,6-hexanediol dimethacrylate, Viscoat 2000, glycidyloxypropyltrimethoxysilane and bisphenol A diglycidyl ether (photosensitive solventless adhesive compns. with light scattering properties for color filters)

IT 947-19-3, 1-Hydroxycyclohexyl phenyl ketone (photosensitizer; photosensitive solventless adhesive compns. with light scattering properties for color filters)

L50 ANSWER 23 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:553160 HCPLUS Full-text

DOCUMENT NUMBER: 137:110255

TITLE: Photopolymerizable compositions and their use in color filter manufacture

INVENTOR(S): Uchikawa, Kiyoshi; Shinoda, Masaru; Onodera, Junichi

PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

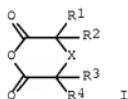
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002206014	A	20020726	JP 2001-1979 <--	20010109
PRIORITY APPLN. INFO.:			JP 2001-1979 <--	20010109

ED Entered STN: 26 Jul 2002

GI



AB The compns. having high transparency, adhesion, storage stability, resistance to heat and chems., etc., suitable for use in liquid crystal displays, comprise photopolymn. initiators and unsatd. compds. obtained by reacting epoxy compds. with unsatd. organic acids and then with acid anhydrides I (X = CH₂, CH, O, NH, N; NR₅, CHR₅, CR₅R₆; R₁-R₆ = H, linear, branched, or cyclic C₁-12 alkyl optionally containing unsatd. bond or Si group, Ph, NH₂, halo, nothing). Thus, fluorene-type epoxy resin was reacted with acrylic acid to give 9,9-bis[4-[(2-hydroxy-3-acryloxy)propoxy]phenyl]fluorene, which was reacted with glutaric anhydride and benzophenonetetracarboxylic dianhydride to give an unsatd. compound A composition containing the unsatd. compound, pentaerythritol tetraacrylate, and Irgacure 369 (photopolymn. initiator) was applied on a glass substrate, dried, and UV-irradiated, developed, and baked to give a film showing high transparency, good adhesion to substrate, and no discoloration.

IT 443309-13-5P
(photopolymerizable compns. and their use in color filter manufacture)

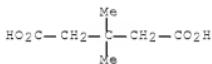
RN 443309-13-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranyl methyl ester, polymer with
phenylmethyl 2-methyl-2-propenoate, hydrogen 3,3-dimethylpentanedioate
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 4839-46-7

CMF C7 H12 O4



CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

CRN 86249-19-6

CMF (C11 H12 O2 . C7 H10 O3)×

CCI PMS

CM 4

CRN 2495-37-6

CMF C11 H12 O2



CM 5

CRN 106-91-2

CMF C7 H10 O3



IT 443309-15-7P
(photopolymerizable compns. and their use in color
filter manufacture)

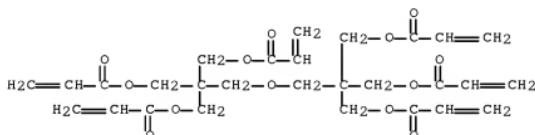
RN 443309-15-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with
phenylmethyl 2-methyl-2-propenoate, hydrogen 3,3-dimethylpentanedioate
2-propenoate, polymer with 2-[(3-[(1-oxo-2-propenyl)oxy]-2,2-bis[(1-
oxo-2-propenyl)oxy]methyl]propoxy)methyl]-2-[(1-oxo-2-
propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX
NAME)

CM 1

CRN 29570-58-9

CMF C28 H34 O13



CM 2

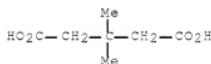
CRN 443309-13-5

CMF (C11 H12 O2 . C7 H10 O3)x . x C7 H12 O4 . x C3 H4 O2

CM 3

CRN 4839-46-7

CMF C7 H12 O4



CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 86249-19-6
 CMF (C11 H12 O2 . C7 H10 O3)x
 CCI PMS

CM 6

CRN 2495-37-6
 CMF C11 H12 O2



CM 7

CRN 106-91-2
 CMF C7 H10 O3



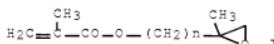
IC ICM C08F299-02
 ICS C08F002-44; C08F002-50; C08G059-14; G03F007-027
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 73, 74
 ST photopolymerizable resin compn color filter manuf
 LCD; epoxy resin acrylate acid anhydride product photopolymn; fluorene
 epoxy resin acrylate anhydride product photopolymn; glutaric anhydride
 epoxy acrylate product photopolymn; pentaerythritol tetraacrylate
 photopolymerizable compn color filter
 IT Epoxy resins, uses
 (acrylic, crosslinked; photopolymerizable compns. and their use in
 color filter manufacture)
 IT Liquid crystal displays
 (color; photopolymerizable compns. and their use in color
 filter manufature)
 IT Optical filters
 (photopolymerizable compns. and their use in color

filter manufacture)
 IT 4687-94-9P 143182-97-2P 443285-94-7P 443308-33-6P
 443309-13-5P
 (photopolymerizable compns. and their use in color
 filter manufacture)
 IT 443285-95-8P 443309-15-7P 443309-16-8P 443309-53-3P
 (photopolymerizable compns. and their use in color
 filter manufacture)
 IT 110-94-1, Glutaric acid 2421-28-5, Benzophenonetetracarboxylic
 dianhydride 4986-89-4, Pentaerythritol tetraacrylate 5662-95-3,
 3,3-Tetramethyleneglutaric anhydride 29570-58-9, Dipentaerythritol
 hexaacrylate 65697-21-4, Benzyl methacrylate-methacrylic acid
 copolymer
 (photopolymerizable compns. and their use in color
 filter manufacture)

L50 ANSWER 24 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2001:210122 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:245317
 TITLE: Radiation-sensitive epoxy (meth)acrylate
 composition and color filter
 obtained from it
 INVENTOR(S): Yoshida, Koichiro; Sakurai, Koichi; Aoyama,
 Satoko; Watanabe, Takeshi
 PATENT ASSIGNEE(S): JSR Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001075273	A	20010323	JP 1999-250063 -->	19990903
JP 4075243	B2	20080416	JP 1999-250063 -->	19990903
PRIORITY APPLN. INFO.:				

ED Entered STN: 23 Mar 2001
 GI



AB The composition contains colorants, alkali-soluble resins containing copolymers of epoxy (meth)acrylate derivs. I (R = H, Me; n = 1-5) and other comonomers, polyfunctional monomers, and photopolymer initiators. The color filter has imaging elements obtained from the above composition. The composition shows good storage stability and its cured product shows good scratch resistance.
 IT 330666-19-8P, Benzyl methacrylate-dipentaerythritol hexaacrylate-2-hydroxyethyl methacrylate-methacrylic acid-2-methylglycidyl methacrylate copolymer 330666-20-1P,

Benzyl methacrylate-dipentaerythritol hexaacrylate-glycerol monomethacrylate-methacrylic acid-2-methylglycidyl methacrylate copolymer 330666-21-2^b, Benzyl methacrylate-dipentaerythritol hexaacrylate-methacrylic acid-2-methylglycidyl methacrylate-mono(2-methacryloyloxyethyl) succinate copolymer 330666-22-3^b, Dipentaerythritol hexaacrylate-2-hydroxyethyl methacrylate-methacrylic acid-2-methylglycidyl acrylate-N-phenylmaleimide-styrene copolymer (radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

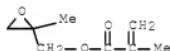
RN 330666-19-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate, (2-methyloxiranyl)methyl 2-methyl-2-propenoate, 2-[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl-2-[(1-oxo-2-propenyl)oxy]methyl-1,3-propanediyl di-2-propenoate and phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 41768-20-1

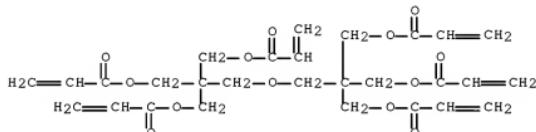
CMF C8 H12 O3



CM 2

CRN 29570-58-9

CMF C28 H34 O13



CM 3

CRN 2495-37-6

CMF C11 H12 O2



CM 4

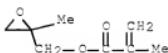
CRN 868-77-9
CMF C6 H10 O3

CM 5

CRN 79-41-4
CMF C4 H6 O2

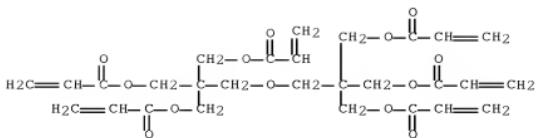
RN 330666-20-1 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with (2-methyloxiranyl)methyl 2-methyl-2-propenoate, 2-[(3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxyl)methyl]-2-[(1-oxo-2-propenyl)oxy]methyl 1,3-propanediyl di-2-propenoate, phenylmethyl 2-methyl-2-propenoate and 1,2,3-propanetriol mono(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 41768-20-1
CMF C8 H12 O3

CM 2

CRN 29570-58-9
CMF C28 H34 O13



CM 3

CRN 2495-37-6
CMF C11 H12 O2

CM 4

CRN 79-41-4
CMF C4 H6 O2

CM 5

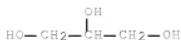
CRN 50853-28-6
CMF C7 H12 O4
CCI IDS

CM 6

CRN 79-41-4
CMF C4 H6 O2

CM 7

CRN 56-81-5
 CMF C3 H8 O3



RN 330666-21-2 HCPLUS
 CN Butanedioic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with ethenylbenzene, (2-methyloxiranyl)methyl 2-methyl-2-propenoate, 2-methyl-2-propenoic acid, 2-[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[(1-oxo-2-propenyl)oxy]methyl]propoxy)methyl]-2-[(1-oxo-2-propenyl)oxy]methyl di-2-propenoate and phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

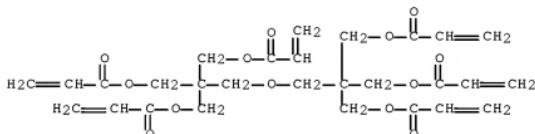
CM 1

CRN 41768-20-1
 CMF C8 H12 O3



CM 2

CRN 29570-58-9
 CMF C28 H34 O13



CM 3

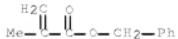
CRN 20882-04-6
 CMF C10 H14 O6



CM 4

CRN 2495-37-6

CMF C11 H12 O2



CM 5

CRN 100-42-5

CMF C8 H8



CM 6

CRN 79-41-4

CMF C4 H6 O2



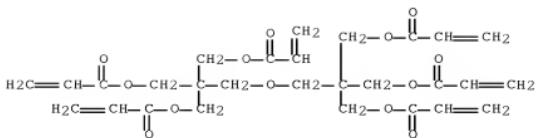
RN 330666-22-3 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene,
 2-hydroxyethyl 2-methyl-2-propenoate, (2-methyloxiranyl)methyl
 2-propenoate, 2-[(3-[(1-oxo-2-propenyl)oxy]-2,2-bis[(1-oxo-2-
 propenyl)oxy]methyl]propoxy)methyl]-2-[(1-oxo-2-propenyl)oxy]methyl]-
 1,3-propanediyl di-2-propenoate and 1-phenyl-1H-pyrrole-2,5-dione
 (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9

CMF C28 H34 O13



CM 2

CRN 19900-46-0

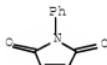
CMF C7 H10 O3



CM 3

CRN 941-69-5

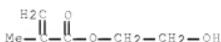
CMF C10 H7 N O2



CM 4

CRN 868-77-9

CMF C6 H10 O3



CM 5

CRN 100-42-5

CMF C8 H8



CM 6

CRN 79-41-4
CMF C4 H6 O2

IC ICM G03F007-027
ICS G02B005-20; G03F007-004

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST radiation sensitive epoxy methacrylate color filter
; acrylic glycidyl radiation sensitive color filter
; storage stability scratch resistance color filter

IT Epoxy resins, uses
(acrylic; radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

IT Optical filters
(radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

IT 147-14-8, C.I. Pigment Blue 15 4051-63-2, C.I. Pigment Red 177
14302-13-7, C.I. Pigment Green 36
(colorant; radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

IT 149-30-4, 2-Mercaptobenzothiazole 7189-83-5,
2,2'-Bis(2,4-dichlorophenyl)-4,4',5,5'-tetraphenyl-1,2'-biimidazole
119313-12-1
(photopolymn. initiator; radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

IT 90-93-7, 4,4'-Bis(diethylamino)benzophenone
(radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

IT 330666-19-8P, Benzyl methacrylate-dipentaerythritol
hexaacrylate-2-hydroxyethyl methacrylate-methacrylic
acid-2-methylglycidyl methacrylate copolymer 330666-20-1P,
Benzyl methacrylate-dipentaerythritol hexaacrylate-glycerol
monomethacrylate-methacrylic acid-2-methylglycidyl methacrylate
copolymer 330666-21-2P, Benzyl
methacrylate-dipentaerythritol hexaacrylate-methacrylic
acid-2-methylglycidyl methacrylate-mono(2-methacryloyloxyethyl)
succinate-styrene copolymer 330666-22-3P, Dipentaerythritol
hexaacrylate-2-hydroxyethyl methacrylate-methacrylic
acid-2-methylglycidyl acrylate-N-phenylmaleimide-styrene copolymer
(radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

IT 29570-58-9, Dipentaerythritol hexaacrylate 330666-15-4, Benzyl
methacrylate-2-hydroxyethyl methacrylate-methacrylic

acid-2-methylglycidyl methacrylate copolymer 330666-16-5, Benzyl methacrylate-glycerol monomethacrylate-methacrylic acid-2-methylglycidyl methacrylate copolymer 330666-17-6, Benzyl methacrylate-methacrylic acid-2-methylglycidyl methacrylate-mono(2-methacryloyloxyethyl) succinate-styrene copolymer 330666-18-7, 2-Hydroxyethyl methacrylate-methacrylic acid-2-methylglycidyl acrylate-N-phenylmaleimide-styrene copolymer (radiation-sensitive epoxy (meth)acrylate composition with good storage stability for color filter)

L50 ANSWER 25 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999;699268 HCAPLUS Full-text

DOCUMENT NUMBER: 131:329949

TITLE: Functional material releasing structure for storage of color filter material

INVENTOR(S): Suzuki, Nobuo

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11302627	A	19991102	JP 1998-107927 <--	19980417
PRIORITY APPLN. INFO.:			JP 1998-107927 <--	19980417

ED Entered STN: 02 Nov 1999

AB The functional material releasing structure has a resin containing functional materials such as a polymerization inhibitor and a dispersing agent, wherein the resin slowly releasing the functional materials in a solution and is insol. in the solution. The structure improve the shelf-life of a color filter material.

IT 248269-70-7P, Methacrylic acid-benzyl methacrylate-2-hydroxypropyl methacrylate-cyclohexyl methacrylate copolymer (functional material for storing color filter material)

RN 248269-70-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with cyclohexyl 2-methyl-2-propenoate, 2-hydroxypropyl 2-methyl-2-propenoate and phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

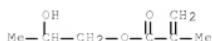
CM 1

CRN 2495-37-6

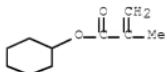
CMF C11 H12 O2



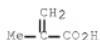
CM 2

CRN 923-26-2
CMF C7 H12 O3

CM 3

CRN 101-43-9
CMF C10 H16 O2

CM 4

CRN 79-41-4
CMF C4 H6 O2

IC ICM C09K003-00

ICS B65D065-42; G02B005-20; G02B005-22; G03F007-004

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 47, 73

ST functional material resin color filter storage

IT Carbon black, uses
(functional material for storing color filter
material)

IT Containers

Optical filters

(functional material such as polymerization inhibitor and dispersing agent
slowly releasing structure to store color filter
material)IT 947-19-3, 1-Hydroxycyclohexylphenyl ketone
(Irgacure 184; functional material for storing color
filter material)IT 55765-89-4P, Methyl methacrylate-ethyl methacrylate-methacrylic acid
copolymer 248269-68-3P, Ethyl methacrylate-benzyl

methacrylate-styrene-glycidyl methacrylate copolymer
 248269-70-7P, Methacrylic acid-benzyl
 methacrylate-2-hydroxypropyl methacrylate-cyclohexyl methacrylate
 copolymer
 (functional material for storing color filter
 material)
 IT 12236-62-3, C.I. Pigment Orange 36 248605-74-5
 (functional material for storing color filter
 material)
 IT 90-94-8, Michler's ketone 147-14-8, C.I. Pigment Blue 15:6
 150-76-5, p-Methoxyphenol 1326-04-1, C.I. Pigment Violet 2
 1707-68-2, 2-(o-Chlorophenyl)-4,5-diphenylimidazolyl dimer
 4051-63-2, C.I. Pigment Red 177 36888-99-0, C.I. Pigment Yellow 139
 51473-56-4, Vinylmethoxy silane 55919-77-2 86772-78-3, Methacrylic
 acid-ethyl methacrylate-2-hydroxyethyl methacrylate-butyl methacrylate
 copolymer 98112-40-4, BM 1000 100752-97-4, Diethylthioxanthone
 215247-95-3
 (functional material for storing color filter
 material)

L50 ANSWER 26 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:481477 HCAPLUS Full-text

DOCUMENT NUMBER: 131:145868

TITLE: Photopolymerizable pigment dispersing agents and
 photosensitive colored compositions and
 compositions for light blocking layers therewith

INVENTOR(S): Kiyohara, Kinko; Segu, Shunsuke; Inoue, Akira;
 Ando, Masayuki

PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 11209554	A	19990803	JP 1998-15428 <--	19980128
PRIORITY APPLN. INFO.:			JP 1998-15428 <--	19980128

ED Entered STN: 04 Aug 1999

AB Title dispersing agents, useful for pigment-dispersed color resist compns. for
 color filter preparation, are graft polymers comprising hydrophilic main
 chains and hydrophobic side chains or hydrophobic main chains and hydrophilic
 side chains and have ethylenic unsatd. double bonds in the main and/or side
 chains. Thus, AA 6 methacryloyl-monoterpenoid poly(Me methacrylate) oligomer
 52,4, 2-hydroxyethyl methacrylate 71, and methacrylic acid 7.8 parts were
 polymerized to give a carboxyl group-containing graft polymer, 60 parts of
 which was reacted with 16.8 parts glycidyl methacrylate to give a
 photopolymerizable dispersing agent. A composition comprising TM black 3952
 (Cu, Fe, Mn, Zr-containing metal oxide pigment), the photopolymerizable
 dispersing agent prepared above, bisphenol A-type epoxy acrylate alkali-
 soluble binder, dipentaerythritol pentaacrylate, and photopolymn. initiators
 of
 2-benzyl-2-dimethylamino-1-(4-morpholinophenyl)butanone, 4,4'-
 diethylthioxanthone, 2,4-diethylthioxanthone, and biimidazole was applied on a
 glass plate to form light blocking layer, which was exposed to high pressure

mercury lamp and developed with a KOH solution showing good resolution of pattern and development property.

IT 232607-32-8P, 2-Hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate graft copolymer glycidyl methacrylate ester 235756-08-0P, AA 6-2-hydroxyethyl methacrylate-methacrylic acid graft copolymer glycidyl methacrylate ester

(photopolymerizable dispersing agent; preparation of photopolymerizable pigment dispersing agents for photoresist compns.)

RN 232607-32-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxyl]propyl ester, graft (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 232607-31-7

CMF (C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 3

CRN 868-77-9

CMF C6 H10 O3



CM 4

CRN 80-62-6

CMF C5 H8 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2

RN 235756-08-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl
 2-methyl-2-propenoate and Macromonomer AA 6,
 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, graft (9CI)
 (CA INDEX NAME)

CM 1

CRN 5919-74-4
CMF C7 H12 O4

CM 2

CRN 235756-07-7
CMF (C6 H10 O3 . C4 H6 O2 . Unspecified)x
CCI PMS

CM 3

CRN 122525-04-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 868-77-9
CMF C6 H10 O3

CM 5

CRN 79-41-4
CME C4 H6 Q2



IT 235756-11-3P 235756-16-8P

(preparation of photoresist compns. containing photopolymerizable pigment dispersing agents)

RN 235756-11-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate and Macromonomer AA 6, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, graft, polymer with 2-[(3-hydroxy-2,2-bis[(1-oxo-2-propenyl)oxy]methyl)propoxy]methyl-2-[(1-oxo-2-propenyl)oxy]methyl di-2-propenoate and VR 60TH (9Cl) (CA INDEX NAME)

CM 1

CRN 233672-85-0

CMF Unspecified

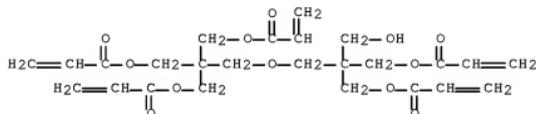
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 60506-81-2

CMF C25 H32 012



CM 3

CRN 235756-08-8

CMF C7 H12 O4 . x (C6 H10 O3 . C4 H6 O2 . Unspecified) x

CM 4

CRN 5919-74-4
CMF C7 H12 04



CM 5

CRN 235756-07-7

CMF (C6 H10 O3 . C4 H6 O2 . Unspecified)x
CCI PMS

CM 6

CRN 122525-04-6

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 7

CRN 868-77-9

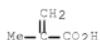
CMF C6 H10 O3



CM 8

CRN 79-41-4

CMF C4 H6 O2



RN 235756-16-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxyl]propyl ester, graft, polymer with 2-[(3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy)methyl]-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and VR 60TH (9CI) (CA INDEX NAME)

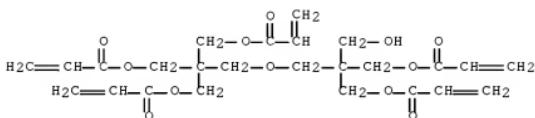
CM 1

CRN 233672-85-0

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 60506-81-2
CMF C25 H32 O12

CM 3

CRN 232607-32-8
CMF C7 H12 O4 . x (C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x

CM 4

CRN 5919-74-4
CMF C7 H12 O4

CM 5

CRN 232607-31-7
CMF (C6 H10 O3 . C5 H8 O2 . C4 H6 O2)x
CCI PMS

CM 6

CRN 868-77-9
CMF C6 H10 O3

CM 7

CRN 80-62-6
 CMF C5 H8 O2



CM 8

CRN 79-41-4
 CMF C4 H6 O2



IC ICM C08L051-00
 ICS C08F290-02; C08F291-00; C08L063-10; C09D005-00; C09D007-12;
 C09D163-10; G02B005-00; G02B005-20; G02B005-22; G03F007-027;
 C08F002-44; C09D011-00

CC 42-13 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 74

ST photopolymerizable dispersing agent pigment photoresist compn;
 photosensitive colored compn photopolymerizable dispersing agent;
 black pigment copper iron manganese photoresist; methyl methacrylate
 graft polymer dispersing agent; hydroxyethyl methacrylate methacrylic
 acid graft polymer; epoxy acrylate photoresist compn; pentaerythritol
 acrylate photoresist compn; photopolyrn initiator
 benzylmethylenamorpholinophenylbutanone photoresist compn;
 ethylthioxanthone photopolyrn initiator photoresist compn;
 color filter photopolymerizable dispersing agent

IT Polymerization catalysts
 (photopolyrn.; preparation of photoresist compns. containing
 photopolymerizable pigment dispersing agents)

IT Optical filters
 (preparation of photoresist compns. containing photopolymerizable pigment
 dispersing agents for)

IT 232607-32-8P, 2-Hydroxyethyl methacrylate-methacrylic
 acid-methyl methacrylate graft copolymer glycidyl methacrylate
 ester 235756-08-8P, AA 6-2-hydroxyethyl
 methacrylate-methacrylic acid graft copolymer glycidyl
 methacrylate ester
 (photopolymerizable dispersing agent; preparation of photopolymerizable
 pigment dispersing agents for photoresist compns.)

IT 82799-44-8, 2,4-Diethylthioxanthone 119313-12-1,
 2-Benzyl-2-dimethylamino-1-(4-morpholinophenyl)butanone 125907-85-9,
 4,4'-Diethylthioxanthone 125934-36-3, Bi-1H-imidazole
 (photopolyrn. initiator; preparation of photoresist compns. containing
 photopolymerizable pigment dispersing agents)

IT 235756-11-3P 235756-16-8P
 (preparation of photoresist compns. containing photopolymerizable pigment
 dispersing agents)

L50 ANSWER 27 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1999:388539 HCAPLUS Full-text
 DOCUMENT NUMBER: 131:65901
 TITLE: Photosensitive resin composition, photosensitive element, manufacture of color filter, and color filter
 INVENTOR(S): Saito, Manabu; Yamazaki, Hiroshi; Kobayashi, Hiromi; Tanigawa, Naohiro
 PATENT ASSIGNEE(S): Hitachi Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11160867	A	19990618	JP 1997-321848 <--	19971125
PRIORITY APPLN. INFO.:			JP 1997-321848 <--	19971125

ED Entered STN: 23 Jun 1999

AB The title resin composition contains (a) an acrylic polymer having photopolymerizable unsatd. groups and aryl groups, (b) a photopolymerizable unsatd. group-containing monomer, (c) a photopolymn. initiator, and (d) a pigment. The photosensitive element comprises a photosensitive layer made of the composition. A color filter is also claimed, which is manufactured by repeating a process comprising the steps of forming a coating of the composition on a substrate, imagewise irradiating the coating with an active ray to photo-cure the exposed regions, and removing the unexposed regions by development to form a pixel by using plural photosensitive resin compns. having different colors. The composition shows high photosensitivity and provides a high resolution pattern with good profile, thermal resistance, and solvent resistance.

IT 228414-63-9P, Acrylic acid-ethyl acrylate-ethyl methacrylate copolymer ester with glycidyl methacrylate

(photoresist containing unsatd. acrylic polymer with aryl group, unsatd. compound, and dye)

RN 228414-63-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with ethyl

2-propenoate and 2-propenoic acid,

2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxylpropyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 29593-79-1
 CMF (C₆ H₁₀ O₂ . C₅ H₈ O₂ . C₃ H₄ O₂)_x
 CCI PMS

CM 3

CRN 140-88-5
 CMF C₅ H₈ O₂



CM 4

CRN 97-63-2
 CMF C₆ H₁₀ O₂



CM 5

CRN 79-10-7
 CMF C₃ H₄ O₂



IC ICM G03F007-027
 ICS C08F002-50; C08F290-12; C08L033-06; G02B005-20; G03F007-004;
 G03F007-028; G03F007-038; C09D004-06

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST acrylic polymer glycidyl methacrylate ester
 photoresist

IT Optical filters
 Photoresists

(photoresist containing unsatd. acrylic polymer with aryl group,
 unsatd. compound, and dye)

IT 228414-63-9P, Acrylic acid-ethyl acrylate-ethyl methacrylate
 copolymer ester with glycidyl methacrylate
 (photoresist containing unsatd. acrylic polymer with aryl group,
 unsatd. compound, and dye)

L50 ANSWER 28 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1998:251365 HCPLUS Full-text
 DOCUMENT NUMBER: 129:10639
 ORIGINAL REFERENCE NO.: 129:2215a,2218a
 TITLE: Colored photosensitive resin composition and its
 use as color filter
 INVENTOR(S): Tateno, Akihiko; Hidaka, Takahiro
 PATENT ASSIGNEE(S): Sekisui Fine Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
JP 10104412	A	19980424	JP 1996-255129 <--	19960926
PRIORITY APPLN. INFO.:			JP 1996-255129 <--	19960926

ED Entered STN: 02 May 1998

AB The composition contains an acrylic resin, a pigment, a polyfunctional monomer, a photopolymn. initiator, and Et lactate (I). The composition using I as solvent is uniformly dissolved and dispersed. The color filter having patternwise cured above composition made in air with high sensitivity.

IT 26982-25-2P

(colored photosensitive composition containing acrylic resin and polyfunctional monomer dissolved in Et lactate for color filter)

RN 26982-25-2 HCPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate and 2-hydroxypropyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 923-26-2

CMF C7 H12 O3



CM 2

CRN 97-88-1

CMF C8 H14 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2

IC ICM G02B005-20
ICS C08F020-10; C08L033-00; G03F007-004; G03F007-027; G03F007-028;
G03F007-033

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST photosensitive resin compn ethyl lactate solvent; acrylic resin
photosensitive compn color filter

IT Optical filters
Photoresists
(colored photosensitive composition containing acrylic resin and
polyfunctional monomer dissolved in Et lactate for color
filter)

IT Pigments, nonbiological
(in colored photosensitive composition containing acrylic resin and
polyfunctional monomer dissolved in Et lactate for color
filter)

IT Polymerization catalysts
(photopolymn.; in colored photosensitive composition containing acrylic
resin and polyfunctional monomer dissolved in Et lactate for
color filter)

IT 3524-68-3, PE 3A
(PE 3A; colored photosensitive composition containing acrylic resin and
polyfunctional monomer dissolved in Et lactate for color
filter)

IT 42880-08-0, 2-(2,4-Dimethoxystyryl)-4,6-bis(trichloromethyl)-s-triazine
(TAZ 114, polymerization initiator; colored photosensitive composition
containing
acrylic resin and polyfunctional monomer dissolved in Et lactate
for color filter)

IT 26982-25-2P
(colored photosensitive composition containing acrylic resin and
polyfunctional monomer dissolved in Et lactate for color
filter)

IT 28961-43-5 29570-58-9, DPE 6A
(colored photosensitive composition containing acrylic resin and
polyfunctional monomer dissolved in Et lactate for color
filter)

IT 90-93-7, 4,4'-Diethylaminobenzophenone 90-94-8 149-30-4, 2-Mercaptobenzothiazole 2382-96-9, 2-Mercaptobenzoxazole 7189-82-4,
2,2'-Bis(2-chlorophenyl)-4,4',5,5'-tetraphenyl-1,2'-biimidazole
150275-22-2 151052-45-8, TAZ 118 160509-79-5, TAZ 111
180308-15-0 206355-15-9
(polymerization initiator; colored photosensitive composition containing
acrylic
resin and polyfunctional monomer dissolved in Et lactate for

color filter)
 IT 97-64-3, Ethyl lactate
 (solvent; colored photosensitive composition containing acrylic resin and polyfunctional monomer dissolved in Et lactate for color filter)

L50 ANSWER 29 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1998:190332 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 128:258495
 ORIGINAL REFERENCE NO.: 128:51161a,51164a
 TITLE: Coating compositions with good adhesion and abrasion, soiling, chemical, and heat resistance
 INVENTOR(S): Harada, Takamasa; Kudo, Takanori; Yamaguchi, Hidemasa; Nozaki, Masako
 PATENT ASSIGNEE(S): Hoechst Industry Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10077448	A	19980324	JP 1996-231130 <--	19960830
PRIORITY APPLN. INFO.:			JP 1996-231130 <--	19960830

ED Entered STN: 01 Apr 1998
 AB Title coating compns. are useful as protective coating for transparent substrates such as color filters and comprise polymers and solvents and are characterized by containing a compound selected from alkoxy silanes, alkoxytitaniums, alkoxyaluminums, and alkoxyzirconiums. The compns. may also contain heat crosslinking agents and active ray polymerization initiators. The polymers are typically acrylic polymers and aqueous alkali soluble or at least swelling in aqueous alkali.

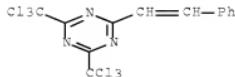
IT 205126-72-3P
 (coating compns. with good adhesion and abrasion, soiling, chemical, and heat resistance)

RN 205126-72-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyl 2-methyl-2-propenoate, oxiranylmethyl 2-methyl-2-propenoate and 2-(2-phenylethényl)-4,6-bis(trichloromethyl)-1,3,5-triazine (9CI) (CA INDEX NAME)

CM 1

CRN 42880-03-5
 CMF C13 H7 C16 N3



CM 2

CRN 106-91-2
CMF C7 H10 O3

CM 3

CRN 80-62-6
CMF C5 H8 O2

CM 4

CRN 79-41-4
CMF C4 H6 O2

IC ICM C09D201-00
ICS C09D044-06; C09D133-02; C09D133-04; C09D201-02; C09D201-08;
C08F290-06

CC 42-7 (Coatings, Inks, and Related Products)

IT 205126-72-3P
(coating compns. with good adhesion and abrasion, soiling, chemical,
and heat resistance)

IT 919-30-2, γ -Aminopropyltriethoxysilane 1071-76-7,
Tetrabutoxyzirconium 1760-24-3,

γ -(2-Aminoethyl)aminopropyltrimethoxysilane 4420-74-0,

γ -Mercaptopropyltrimethoxysilane 32670-03-4

68443-53-8 109190-12-7, Coronate 2507

(coating compns. with good adhesion and abrasion, soiling, chemical,
and heat resistance)

L50 ANSWER 30 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:558127 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 127:249336

ORIGINAL REFERENCE NO.: 127:48721a,48724a

TITLE: Manufacture of microencapsulated pigment

compositions and aqueous coloring solutions with dispersion stability

INVENTOR(S): Takao, Nagayuki; Asada, Masahiko; Saito, Naoto
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT NO. 1,000,100 KIND P DATE 1900/01/01 APPLICATION NO. 1000,000 DATE 1900/01/01

PRIORITY APPLN. INFO.: JP 1996-25297 19960213

ED Entered STN: 01 Sep 1997
AB The compns., useful for coatings, textile printing, inks, color filters, are manufactured by mixing (dry-ground) crude pigments with CO2H-containing acrylic resin alkali salts and H2O and/or aqueous solvents; mech. dispersing the mixts.; crystallizing the resins on the pigments by adding acids; and neutralizing the crystals by adding alkalies. Thus, 800 parts ground Sumitone Fast Violet RL 4R (carbazoledioxazine violet pigment) was mixed with resin (prepared from Bu methacrylate 175, Bu acrylate 10.7, β -hydroxyethyl methacrylate 37.5, and methacrylic acid 26.8 parts) 800, dimethylethanolamine (I) 44.4, and H2O 2355.6 parts at 75° for 5 h, dispersed, mixed with HCl to pH 4.9, and neutralized with I to give a pigment composition A textile printing paste was prepared using the pigment composition to show good coloring of cotton satin.

IT 192193-10-5P
(microcapsules; microencapsulated pigment compns. for aqueous coloring
solns. with dispersion stability)

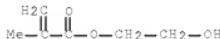
BN 192193-10-5 HCABRILL

CN 19239 10-5 IUPAC Name
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and
oxiranylmethyl 2-methyl-2-propenoate (SCI) (CA INDEX NAME)

CM 1

CRN 868-77-9

CMF C6 H10 O3



CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 106-91-2
CMF C7 H10 O3

CM 4

CRN 97-88-1
CMF C8 H14 O2

CM 5

CRN 79-41-4
CMF C4 H6 O2

IC ICM C09B067-20

ICS C08K005-16; C08L033-02; C08L033-06; C09B067-08; C09B067-46;
C09C003-00; C09C003-10; C09D011-00

CC 40-6 (Textiles and Fibers)

Section cross-reference(s): 41, 42, 74

ST pigment compn acrylic resin microencapsulation; coating pigment
acrylic resin microencapsulation; textile printing pigment acrylic
resin; ink pigment acrylic resin microencapsulation; color
filter pigment acrylic resin

IT Optical filters

Pigments, nonbiological

(microencapsulated pigment compns. for aqueous coloring solns. with
dispersion stability)

IT 70977-05-8P 192193-10-5P

(microcapsules; microencapsulated pigment compns. for aqueous coloring solns. with dispersion stability)

L50 ANSWER 31 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1997:490719 HCPLUS Full-text

DOCUMENT NUMBER: 127:197824

ORIGINAL REFERENCE NO.: 127:38219a,38222a

TITLE: Photopolymerizable compositions for color filters with high sensitivity at exposure and developability

INVENTOR(S): Urano, Toshiyoshi; Ikeda, Shingo; Hino, Etsuko

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09179297	A	19970711	JP 1995-334825 ----- JP 1995-334825	19951222 ----- 19951222

PRIORITY APPLN. INFO.:
ED Entered STN: 04 Aug 1997
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The composition, useful for manufacture of color filters, contains an ethylenically-unsatd. compound having aminophenyl or aminocyclohexyl skeleton. The ethylenically-unsatd. compound may have ≥ 1 structure of I-IV [R1, R2 = H, halo; R3 = (un)substituted C1-20 alkylene; R4 = H, C1-10 alkyl; R5 = H, Me; Z = H, (OH-containing) substituent; m = 0-6; n = 1, 2].

IT 194164-87-9P 194164-88-0P 194164-90-4P

194164-91-5P

(photopolymerizable composition for color filters with high exposure sensitivity and developability)

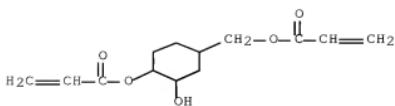
RN 194164-87-9 HCPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene, methylenebis[4,1-phenylenenitrilobis(2-hydroxy-3,1-propanediyl)] tetra-2-propenoate, (1-methylethenyl)benzene and [4-[(1-oxo-2-propenyl)oxy]-3-hydroxycyclohexyl]methyl 2-propenoate (9CI) (CA INDEX NAME)

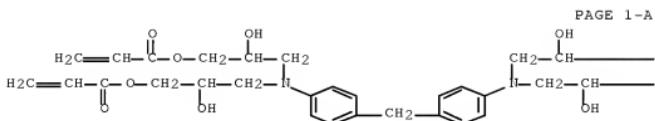
CM 1

CRN 181224-38-4

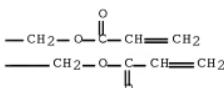
CMF C13 H18 O5



CM 2

CRN 108338-68-7
CMF C37 H46 N2 O12

PAGE 1-B



CM 3

CRN 100-42-5
CMF C8 H8

CM 4

CRN 98-83-9
CMF C9 H10



CM 5

CRN 79-10-7
CMF C3 H4 Q2

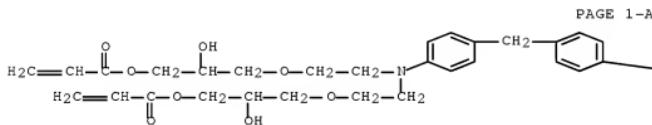


RN 194164-88-0 HCAPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene,
[3-hydroxy-4-((1-oxo-2-propenyl)oxy)cyclohexyl]methyl 2-propenoate,
methylenebis[4-(1-phenyleneimino)bis[2,1-ethanedioxy(2-hydroxy-3-
propanoyl)]] tetra-2-propenoate and (1-methylethyl)benzene (9CI)
(CA INDEX NAME)

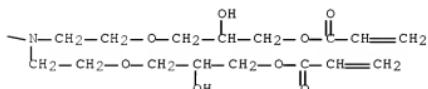
CM 1

CRN 194164-83-5
CMF C45 H62 N2 016



PAGE 1-A

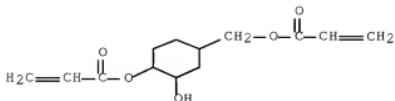
PAGE 1-B



CM 2

CRN 181224-38-4

CMF C13 H18 O5



CM 3

CRN 100-42-5

CMF C8 H8



CM 4

CRN 98-83-9

CMF C9 H10



CM 5

CRN 79-10-7

CMF C3 H4 O2



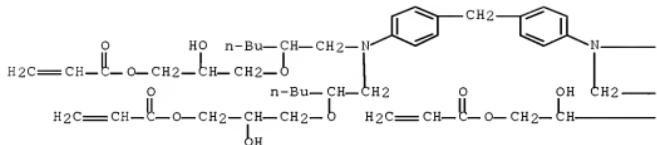
RN 194164-90-4 HCAPLUS

2-Propenoic acid, polymer with ethenylbenzene,
 [3-hydroxy-4-[(1-oxo-2-propenyl)oxy]cyclohexyl]methyl 2-propenoate,
 methylenebis[4,1-phenyleneiminobis[(1-butyl-2,1-ethanediyl)oxy(2-
 hydroxy-3,1-propanediyil)]] tetra-2-propenoate and
 (1-methylethenyl)benzene (9CI) (CA INDEX NAME)

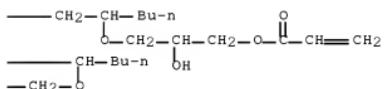
CM 1

CRN 194164-85-7
 CMF C61 H94 N2 O16

PAGE 1-A

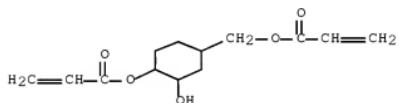


PAGE 1-B



CM 2

CRN 181224-38-4
 CMF C13 H18 O5



CM 3

CRN 100-42-5
 CMF C8 H8

$\text{H}_2\text{C}=\text{CH-Ph}$

CM 4

CRN 98-83-9
CMF C9 H10

CM 5

CRN 79-10-7
CMF C3 H4 O2

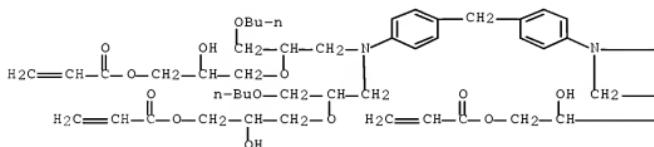
RN 194164-91-5 HCAPLUS

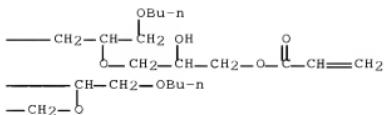
CN 2-Propenoic acid, polymer with ethenylbenzene,
[3-hydroxy-4-[(1-oxo-2-propenyl)oxy]cyclohexyl]methyl 2-propenoate,
methylenebis[4,1-phenyleneimino]bis[[1-(butoxymethyl)-2,1-
ethanediyl]oxy(2-hydroxy-3,1-propanediyl)] tetra-2-propenoate and
(1-methylethenyl)benzene (9CI) (CA INDEX NAME)

CM 1

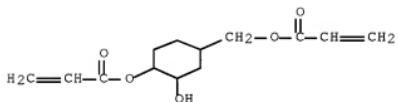
CRN 194164-86-8
CMF C65 H102 N2 O20

PAGE 1-A





CM 2

CRN 181224-38-4
CMF C13 H18 O5

CM 3

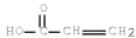
CRN 100-42-5
CMF C8 H8

CM 4

CRN 98-83-9
CMF C9 H10

CM 5

CRN 79-10-7
CMF C3 H4 O2



IC ICM G03F007-027
 ICS G02B005-20; G03F003-10; G03F007-004
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 ST color filter photopolymerizable compn
 developability; aminophenyl based unsatd monomer photopolymerizable compn; aminocyclohexyl based unsatd monomer photopolymerizable compn; sensitivity improved photopolymerizable compn color filter
 IT Liquid crystal displays
 Optical filters
 Photoimaging materials
 (photopolymerizable composition for color filters
 with high exposure sensitivity and developability)
 IT 108338-68-7P 194164-87-9P 194164-88-0P
 194164-90-4P 194164-91-5P
 (photopolymerizable composition for color filters
 with high exposure sensitivity and developability)
 IT 181224-39-5 194164-83-5 194164-84-6 194164-85-7 194164-86-8
 194164-89-1
 (photopolymerizable composition for color filters
 with high exposure sensitivity and developability)

L50 ANSWER 32 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1997:483099 HCPLUS [Full-text](#)
 DOCUMENT NUMBER: 127:197823
 ORIGINAL REFERENCE NO.: 127:38219a,38222a
 TITLE: Photopolymerizable compositions with high
 sensitivity at exposure and developability
 INVENTOR(S): Urano, Toshiyoshi; Ikeda, Shingo; Hino, Etsuko
 PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09179296	A	19970711	JP 1995-334824 -->	19951222
PRIORITY APPLN. INFO.:			JP 1995-334824 -->	19951222

ED Entered STN: 02 Aug 1997
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The composition, useful for manufacture of color filters, contains an ethylenically-unsatd. compound having oxycyclohexyloxyphenyl or oxycyclohexyloxyhexyl skeleton. The ethylenically-unsatd. compound may have ≥ 1 structure of I-IV [$m = 1-6$; R1, R2 = H, halo; Z = H, (OH-containing) substituent; R3 = H, Me; Y = (un)substituted substituent; R4 = H, C1-10 alkyl; X = halo].

IT 194164-74-4P 194164-76-6P 194164-77-7P

194164-78-8P 194164-79-9P 194164-80-2P
(photopolymerizable composition for color filters
with high exposure sensitivity and developability)

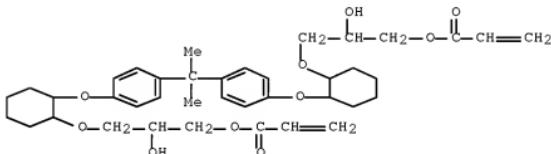
RN 194164-74-4 HCPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene,
[3-hydroxy-4-[(1-oxo-2-propenyl)oxy]cyclohexyl]methyl 2-propenoate,
(1-methylethenyl)benzene, (1-methylethylidene)bis[4,1-phenyleneoxy-2,1-
cyclohexanedioxy(2-hydroxy-3,1-propanediyl)] di-2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 194164-67-5

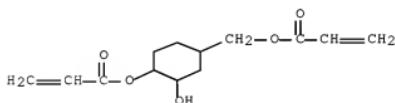
CMF C39 H52 O10



CM 2

CRN 181224-38-4

CMF C13 H18 O5



CM 3

CRN 100-42-5

CMF C8 H8



CM 4

CRN 98-83-9

CMF C9 H10



CM 5

CRN 79-10-7

CMF C3 H4 O2



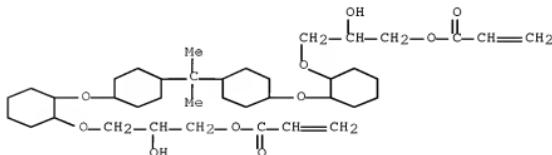
RN 194164-76-6 HCAPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene,
 [3-hydroxy-4-[(1-oxo-2-propenyl)oxy]cyclohexyl]methyl 2-propenoate,
 (1-methylethenyl)benzene and (1-methylethylidene)bis[4,1-
 cyclohexanediyl]oxy-2,1-cyclohexanediyl]oxy(2-hydroxy-3,1-propanediyl)]
 di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

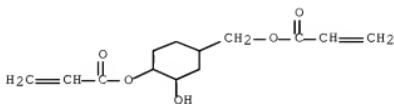
CRN 194164-69-7

CMF C39 H64 O10



CM 2

CRN 181224-38-4
 CMF C13 H18 O5



CM 3

CRN 100-42-5
 CMF C8 H8



CM 4

CRN 98-83-9
 CMF C9 H10



CM 5

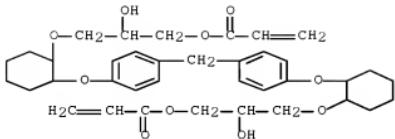
CRN 79-10-7
 CMF C3 H4 O2



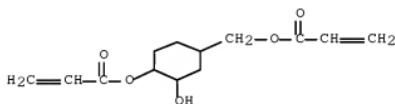
RN 194164-77-7 HCPLUS

CN 2-Propenoic acid, polymer with ethenylbenzene,
 [3-hydroxy-4-[(1-oxo-2-propenyl)oxyl]cyclohexyl]methyl 2-propenoate,
 methylenebis[4,1-phenyleneoxy-2,1-cyclohexanediyl]oxy(2-hydroxy-3,1-
 propanediyl) di-2-propenoate and (1-methylethenyl)benzene (9CI) (CA
 INDEX NAME)

CM 1

CRN 194164-70-0
CMF C37 H48 O10

CM 2

CRN 181224-38-4
CMF C13 H18 O5

CM 3

CRN 100-42-5
CMF C8 H8

CM 4

CRN 98-83-9
CMF C9 H10

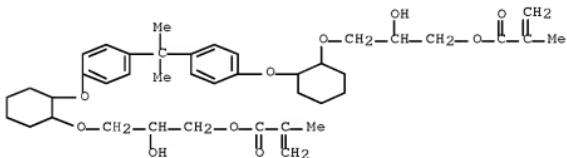
CM 5

CRN 79-10-7
CMF C3 H4 O2

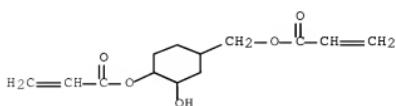
RN 194164-78-8 HCPLUS

CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[4,1-phenyleneoxy-2,1-cyclohexanediyl]oxy(2-hydroxy-3,1-propanediyl) ester, polymer with ethenylbenzene, [3-hydroxy-4-[(1-oxo-2-propenyl)oxy]cyclohexyl]methyl 2-propenoate, (1-methylethyl)benzene and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 194164-71-1
CMF C41 H56 O10

CM 2

CRN 181224-38-4
CMF C13 H18 O5

CM 3

CRN 100-42-5
CMF C8 H8



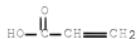
CM 4

CRN 98-83-9
CMF C9 H10



CM 5

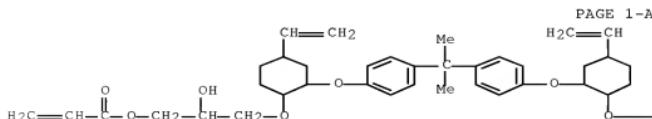
CRN 79-10-7
CMF C3 H4 O2

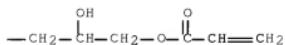


RN 194164-79-9 HCAPLUS
CN 2-Propenoic acid, polymer with ethenylbenzene,
[3-hydroxy-4-[(1-oxo-2-propenyl)oxy]cyclohexyl]methyl 2-propenoate,
(1-methylethenyl)benzene and (1-methylethylidene)bis[4,1-
phenyleneoxy(4-ethenyl-2,1-cyclohexanediyl)oxy(2-hydroxy-3,1-
propanediyl)] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 194164-72-2
CMF C43 H56 O10

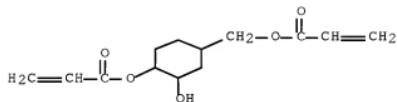




CM 2

CRN 181224-38-4

CMF C13 H18 O5



CM 3

CRN 100-42-5

CMF C8 H8



CM 4

CRN 98-83-9

CMF C9 H10



CM 5

CRN 79-10-7

CMF C3 H4 O2

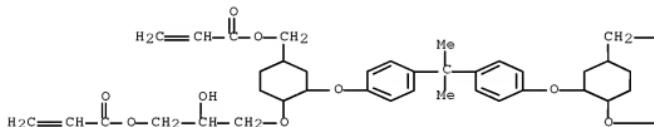


RN 194164-80-2 HCAPLUS
 CN 2-Propenoic acid, polymer with ethenylbenzene,
 [3-hydroxy-4-((1-oxo-2-propenyl)oxyl)cyclohexyl]methyl 2-propenoate,
 (1-methylethyl)benzene and (1-methylethylidene)bis[4,1-
 phenyleneoxy[4-[2-hydroxy-3-[(1-oxo-2-propenyl)oxyl]propoxy]-3,1-
 cyclohexanediyl]bis(methylene)] di-2-propenoate (9CI) (CA INDEX NAME)

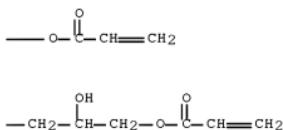
CM 1

CRN 194164-73-3
 CMF C47 H60 O14

PAGE 1-A

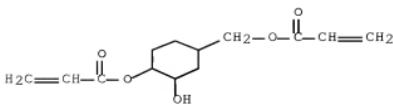


PAGE 1-B



CM 2

CRN 181224-38-4
 CMF C13 H18 O5



CM 3

CRN 100-42-5
CMF C8 H8

CM 4

CRN 98-83-9
CMF C9 H10

CM 5

CRN 79-10-7
CMF C3 H4 O2

IC ICM G03F007-027

ICS G03F007-027; C08F020-26; C08F299-02; G02B005-20; G03F003-10;
G03F007-00; G03F007-004; G03F007-028; C08L033-14

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST color filter photopolymerizable compn
developability; oxycyclohexyloxyphenyl based unsatd monomer
photopolymerizable compn; oxycyclohexyloxyxycyclohexyl based unsatd monomer photopolymerizable compn; sensitivity improved
photopolymerizable compn color filter

IT Liquid crystal displays
Optical filters
Photoimaging materials
(photopolymerizable composition for color filters
with high exposure sensitivity and developability)
IT 194164-67-5P 194164-68-6P 194164-73-3P 194164-74-4P
194164-75-5P 194164-76-6P 194164-77-7P
194164-78-8P 194164-79-9P 194164-80-2P
(photopolymerizable composition for color filters
with high exposure sensitivity and developability)
IT 181224-39-5 194164-69-7 194164-70-0 194164-71-1 194164-72-2
(photopolymerizable composition for color filters
with high exposure sensitivity and developability)

L50 ANSWER 33 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1997:314828 HCPLUS Full-text
DOCUMENT NUMBER: 1261299728
ORIGINAL REFERENCE NO.: 126:57901a,57904a
TITLE: Liquid crystal display color
filter containing silane coupling agent
and its manufacture
INVENTOR(S): Kimura, Yoichi; Tachiki, Shigeo; Kobayashi, Juji;
Sasaki, Shoichi; Akahori, Satohiko; Yamazaki,
Koji; Sato, Tsutomu
PATENT ASSIGNEE(S): Hitachi Chemical Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09061616	A	19970307	JP 1995-213379 <--	19950822

PRIORITY APPLN. INFO.: JP 1995-213379
<-- 19950822

ED Entered STN: 16 May 1997
AB The liquid crystal display color filter is manufactured by repeating the steps
of (1) applying a photosensitive color composition on a substrate, (2) drying,
(3) exposing, and (4) developing for 3 or 4 different color images, in which
the composition comprises (a) a resin with the average mol. 1,500-200,000 and
the acid value 20-300, (b) a pigment, (c) a monomer containing ≥ 1
photopolymerizable unsatd. bond, (d) a photoinitiator, and (e) a silane
coupling agent. The content of the silane coupling agent in the
photosensitive color composition for forming the 2nd color image is set at a
smaller value than that in the photosensitive color composition for forming
the 1st color image. Use of the silane compound as described above increased
adhesivity of the composition on the substrate and reduced an amount of the
development residue on the unexposed area on the substrate.
IT 189067-13-8P, Acrylic acid-butyl acrylate-glycidyl
methacrylate-methyl methacrylate-trimethylolpropane triacrylate-KBM
503 copolymer 189067-15-0P, Acrylic acid-butyl
acrylate-glycidyl methacrylate-methyl methacrylate-pentaerythritol
tetraacrylate-KBM 503 copolymer 189067-17-2P, Acrylic
acid-1,4-butanediol diacrylate-butyl acrylate-glycidyl
methacrylate-methyl methacrylate-KBM 503 copolymer
(liquid crystal display color filter containing
silane coupling agent and its manufacture)

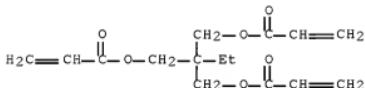
RN 189067-13-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl-1,3-propanediyl di-2-propenoate, oxiranyl methyl 2-methyl-2-propenoate, 2-propenoic acid and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5

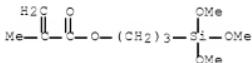
CMF C15 H20 O6



CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si



CM 3

CRN 141-32-2

CMF C7 H12 O2



CM 4

CRN 106-91-2

CMF C7 H10 O3



CM 5

CRN 80-62-6
CMF C5 H8 Q2



CM 6

CRN 79-10-7
CMF C3 H4 O2

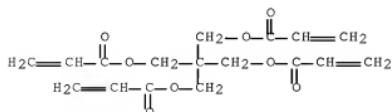


RN 189067-15-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl
di-2-propenoate, butyl 2-propenoate, oxiranyl methyl
2-methyl-2-propenoate, 2-propenoic acid and 3-(trimethoxysilyl)propyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

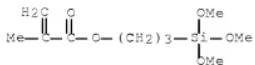
CM 1

CRN 4986-89-4
CMF C17 H20 08



CM 2

CRN 2530-85-0
 CMF C10 H20 O5 Si



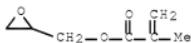
CM 3

CRN 141-32-2
 CMF C7 H12 O2



CM 4

CRN 106-91-2
 CMF C7 H10 O3



CM 5

CRN 80-62-6
 CMF C5 H8 O2



CM 6

CRN 79-10-7
 CMF C3 H4 O2



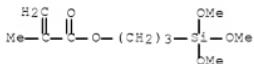
RN 189067-17-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,4-butanediyl di-2-propenoate, butyl 2-propenoate, oxiranylmethyl 2-methyl-2-propenoate, 2-propenoic acid and 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2530-85-0

CMF C10 H20 O5 Si



CM 2

CBN 1070-70-8

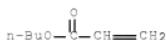
CME C10 H14 04



CM 3

CBN 141-32-2

CME C7 H12 02



CM 4

CRN 106-91-2

CMF C7 H10 03



CM 5

CRN 80-62-6
CMF C5 H8 O2

CM 6

CRN 79-10-7
CMF C3 H4 O2

IT 30400-34-1P

(liquid crystal display color filter containing
silane coupling agent and its manufacture)

RN 30400-34-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, 2-oxiranylmethyl 2-methyl-2-propenoate and 2-propenoic
acid (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2

CM 2

CRN 106-91-2
CMF C7 H10 O3



CM 3

CRN 80-62-6
CMF C5 H8 O2

CM 4

CRN 79-10-7
CMF C3 H4 O2

IC ICM G02B005-20
 ICS G02F001-1335; G03F007-032; G03F007-075
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 38
 ST liq crystal display silane coupling agent; color
 filter liq crystal display
 IT Liquid crystal displays
 Optical filters
 (liquid crystal display color filter containing
 silane coupling agent and its manufacture)
 IT Carbon black, uses
 (liquid crystal display color filter containing
 silane coupling agent and its manufacture)
 IT Coupling agents
 (silane; liquid crystal display color filter
 containing silane coupling agent and its manufacture)
 IT 189067-13-8P, Acrylic acid-butyl acrylate-glycidyl
 methacrylate-methyl methacrylate-trimethylolpropane triacrylate-KBM
 503 copolymer 189067-15-0P, Acrylic acid-butyl
 acrylate-glycidyl methacrylate-methyl methacrylate-pentaerythritol
 tetraacrylate-KBM 503 copolymer 189067-17-2P, Acrylic
 acid-1,4-butanediol diacrylate-butyl acrylate-glycidyl
 methacrylate-methyl methacrylate-KBM 503 copolymer
 (liquid crystal display color filter containing

silane coupling agent and its manufacture)
 IT 2530-85-0
 (liquid crystal display color filter containing
 silane coupling agent and its manufacture)
 IT 30400-34-1P
 (liquid crystal display color filter containing
 silane coupling agent and its manufacture)
 IT 147-14-8 4051-63-2, Pigment red 177 14302-13-7, Pigment green 36
 36888-99-0, Pigment yellow 139 215247-95-3, Pigment violet 23
 (liquid crystal display color filter containing
 silane coupling agent and its manufacture)

L50 ANSWER 34 OF 35 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1996:440165 HCPLUS Full-text
 DOCUMENT NUMBER: 125:100422
 ORIGINAL REFERENCE NO.: 125:18595a,18598a
 TITLE: Color imaging material, photosensitive liquid
 using it, photosensitive element, color
 filter, and its manufacture
 INVENTOR(S): Sasaki, Shoichi; Tachiki, Shigeo; Kobayashi, Juji;
 Akahori, Sato; Yamazaki, Koji; Sato, Tsutomu;
 Kimura, Yoichi
 PATENT ASSIGNEE(S): Hitachi Chemical Co Ltd, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08106163	A	19960423	JP 1994-240014 -->	19941004
PRIORITY APPLN. INFO.:			JP 1994-240014 -->	19941004

ED Entered STN: 25 Jul 1996
 AB The material comprises (A) a resin of 20-300 acid value and 1500-200,000
 weight-average mol. weight, (B) a pigment, (C) a monomer containing \geq
 photopolymerizable unsatd. bonds in mol., (D) a photopolymn. initiator, and
 (E) silane coupling agents, of which one containing vinylbenzylamino and
 trimethoxy, and the other containing methacryloxypropyl and trimethoxy, resp.
 The photosensitive liquid contains the material and an organic solvent. The
 element includes a support film and a layer containing the material. The
 manufacture comprises the steps of forming a film of the color-imaging
 material, irradiating it with an active beam to cure the exposed parts,
 developing it, and repeating these steps for each materials of different
 colors to form image elements. The color filter, manufactured as above, is
 also claimed. The material, element, and photosensitive liquid show good
 adhesion to the support and high photosensitivity, providing the color filter
 with improved optical properties.

IT 30400-34-1P
 (resist composition; manufacture of color filter from
 photosensitive liquid)

RN 30400-34-1 HCPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
 2-propenoate, 2-oxiranylmethyl 2-methyl-2-propenoate and 2-propenoic
 acid (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2
CRN 106-91-2
CMF C7 H10 O3



CM 3
CRN 80-62-6
CMF C5 H8 O2



CM 4
CRN 79-10-7
CMF C3 H4 O2



IC ICM G03F007-075
ICS G02B005-20; G03F007-004; G03F007-027; G03F007-028; G03F007-032
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reproductive Processes)
ST color filter imaging photosensitive material;
resist color filter display device; silane
coupling agent photosensitive resist
IT Optical filters

(color; manufacture of color filter from
photosensitive liquid)

IT Coupling agents
Optical imaging devices
(manufacture of color filter from photosensitive
liquid)

IT Lithography
Resists
(photo-, manufacture of color filter from
photosensitive liquid)

IT 78-08-0, Vinyl triethoxysilane
(S 220, resist composition; manufacture of color filter
from photosensitive liquid)

IT 2530-85-0, KBN 503 34937-00-3, SZ 6032
(coupling agent; manufacture of color filter from
photosensitive liquid)

IT 90-93-7 119-61-9, Benzophenone, uses
(initiator; manufacture of color filter from
photosensitive liquid)

IT 147-14-8, C.I. Pigment Blue 15:6 4051-63-2, Pigment red 177
5567-15-7, C.I. Pigment Yellow 83 14302-13-7, C.I. Pigment green 36
36888-99-0, Pigment Yellow 139 215247-95-3, Pigment Violet 23
(manufacture of color filter from photosensitive
liquid)

IT 1070-70-8, 1,4-Butanediol diacrylate 4986-89-4, Pentaerythritol
tetraacrylate 15625-89-5, Trimethylolpropane triacrylate
(photopolymerizable monomer; manufacture of color
filter from photosensitive liquid)

IT 30400-34-1P
(resist composition; manufacture of color filter from
photosensitive liquid)

L50 ANSWER 35 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:379314 HCAPLUS Full-text

DOCUMENT NUMBER: 125:35498

ORIGINAL REFERENCE NO.: 125:6905a,6908a

TITLE: Manufacture of ultrathin photosensitive film
useful for preparation of color
filters

INVENTOR(S): Furubayashi, Hiromi; Yamazaki, Hiroshi; Saito,
Manabu; Kakumaru, Hajime

PATENT ASSIGNEE(S): Hitachi Chemical Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

DOCUMENT TYPE: CODEN: JKXXAF

LANGUAGE: Patent
Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 08073773	A	19960319	JP 1994-210311 <--	19940905
PRIORITY APPLN. INFO.:			JP 1994-210311 <--	19940905

ED Entered STN: 29 Jun 1996

AB The title process involves coating a film with a solution obtained by
dissolving a photosensitive resin composition containing (A) 45-70 parts of a
film-forming polymer (Mw 50,000-150,000) containing 17-30% (meth)acrylic acid,
(B) 30-55 parts ethylenic unsatd. compound, (C) 0.1-10 parts photopolymn.

initiator, and (D) 0.1-50 parts pigment or dye in an organic solvent (solubility parameter 9.0-11; b.p. 115-175°), followed by drying to give 0.5-5.0 µm-thick films. Preferably, the organic solvent is ethylene glycol monomethyl ether acetate, ethylene glycol monoethyl ether, ethylene glycol monobutyl ether, propylene glycol monomethyl ether, cyclohexanone, or iso-amyl alc.

IT 177964-03-3P

(manufacture of ultrathin photosensitive film for preparation of color filters)

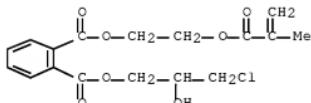
RN 177964-03-3 HCAPLUS

CN 1,2-Benzenedicarboxylic acid, 3-chloro-2-hydroxypropyl 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 54380-33-5

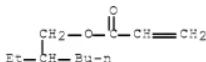
CMF C17 H19 Cl 07



CM 2

CRN 103-11-7

CMF C11 H20 O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



CM 4

CRN 79-41-4
CMF C4 H6 O2

IC ICM C09D004-06
ICS G02B005-20

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73

ST photosensitive film color filter ultrathin

IT Optical filters
Photoimaging compositions and processes
(manufacture of ultrathin photosensitive film for preparation of
color filters)

IT 177964-03-3P
(manufacture of ultrathin photosensitive film for preparation of
color filters)

IT 25133-98-6, 2-Ethylhexyl acrylate-methyl methacrylate-methacrylic acid
copolymer 54380-33-5
(photosensitive resin component; manufacture of ultrathin photosensitive
film for preparation of color filters)

IT 178037-14-4, Colortex Blue UEM 178037-15-5, Colortex Green UE 1203
178037-16-6, Colortex Red UEM
(pigment; manufacture of ultrathin photosensitive film for preparation of
color filters)

IT 119-61-9, Benzophenone, uses 101246-72-4
(polymerization initiator; manufacture of ultrathin photosensitive film for
preparation of color filters)

IT 108-94-1, Cyclohexanone, uses 110-49-6, Ethylene glycol monomethyl
ether acetate 110-80-5, Ethylene glycol monoethyl ether 111-15-9,
Cellosolve acetate 111-76-2, Ethylene glycol monobutyl ether
123-51-3, Iso-amyl alcohol 1320-67-8, Propylene glycol monomethyl
ether
(solvent; manufacture of ultrathin photosensitive film for preparation of
color filters)

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(FILE 'HOME' ENTERED AT 08:44:32 ON 27 MAR 2009)

FILE 'HCAPLUS' ENTERED AT 08:44:51 ON 27 MAR 2009
 L1 1 SEA ABB=ON PLU=ON US20070083012/PN
 SEL RN

FILE 'REGISTRY' ENTERED AT 08:45:11 ON 27 MAR 2009
 L2 8 SEA ABB=ON PLU=ON (25086-15-1/BI OR 42248-78-2/BI OR
 852316-39-3/BI OR 852316-40-6/BI OR 852316-41-7/BI OR
 852316-42-8/BI OR 852316-43-9/BI OR 852316-44-0/BI)
 STR
 L3 50 SEA SSS SAM L3
 L4 STR L3
 L5 50 SEA SSS SAM L5
 L6 6 SEA ABB=ON PLU=ON L2 AND 3-5/NC
 L7

FILE 'HCAPLUS' ENTERED AT 09:07:46 ON 27 MAR 2009
 L8 3 SEA ABB=ON PLU=ON L7

FILE 'REGISTRY' ENTERED AT 09:07:58 ON 27 MAR 2009
 L9 STR L5
 L10 50 SEA SSS SAM L9
 L11 SCR 2043
 L12 50 SEA SSS SAM L9 AND L11
 L13 55359 SEA SSS FUL L9 AND L11
 L14 6 SEA ABB=ON PLU=ON L13 AND L2
 SAV L13 BER066/A
 L15 50 SEA SUB=L13 SSS SAM L5
 L16 STR
 L17 50 SEA SUB=L13 SSS SAM (L5 AND L16)
 L18 5040 SEA SUB=L13 SSS FUL (L5 AND L16)
 L19 6 SEA ABB=ON PLU=ON L18 AND L2
 L20 STR L9
 L21 50 SEA SUB=L13 SSS SAM (L20 AND L16)
 L22 6933 SEA SUB=L13 SSS FUL (L20 AND L16)
 L23 0 SEA ABB=ON PLU=ON L22 AND L2
 SAV L22 BER066A/A

FILE 'HCAPLUS' ENTERED AT 09:47:16 ON 27 MAR 2009
 L24 3345 SEA ABB=ON PLU=ON L18
 L25 4885 SEA ABB=ON PLU=ON L22
 L26 7907 SEA ABB=ON PLU=ON (L24 OR L25)
 L27 1 SEA ABB=ON PLU=ON L26 AND L1
 L28 4179 SEA ABB=ON PLU=ON L26(L)PREP/RL
 E OPTICAL FILTERS/CT
 L29 21466 SEA ABB=ON PLU=ON "OPTICAL FILTERS"+PFT,NT/CT
 L30 225 SEA ABB=ON PLU=ON L28 AND L29
 L31 59 SEA ABB=ON PLU=ON L30 AND RACT/RL
 L32 1 SEA ABB=ON PLU=ON L30 AND CURABLE POLYMER COMPOUND?
 L33 9 SEA ABB=ON PLU=ON L30 AND METHACRYLATE ESTER?
 L34 2 SEA ABB=ON PLU=ON L30 AND CURABLE POLYMER?
 L35 65 SEA ABB=ON PLU=ON (L31 OR L32 OR L33 OR L34)
 L36 33 SEA ABB=ON PLU=ON L35 AND (1840-2003)/PRY,AY,PY
 L37 1 SEA ABB=ON PLU=ON L36 AND L1
 L38 242 SEA ABB=ON PLU=ON L28 AND (COLOUR OR COLOR) (2A)FILTER?
 L39 15 SEA ABB=ON PLU=ON L38 AND MERCAPTO?

L40 QUE ABB=ON PLU=ON METAL HALID? OR TERTIARY AMIN? OR PYRIDIN? OR PYRIDINIUM? OR QUATERNARY AMMONIUM? OR PHOSPHIN? OR PHOSPHONIUM? OR IMIDAZOL? OR BENZYLTRIMETHYL? OR AMMONIUM CHLORID?

L41 1677 SEA ABB=ON PLU=ON QYE BENZYLTRIETHYL AMMONIUM CHLORID? OR TETRABUTYL AMMONIUM BROMID? OR TRIPHENYL PHOSPHIN? OR ETHYLTRIPHENYL PHOSPHONIUM BROMID? OR TETRAPHENYL PHOSPHONIUM BROMID? OR BENZYLTRIPHENYL PHOSPHONIUM? OR 2-METHYL IMIDAZOL?

L42 8 SEA ABB=ON PLU=ON L36 AND (L40 OR L41)

L43 3 SEA ABB=ON PLU=ON L39 AND (L40 OR L41)

L44 15 SEA ABB=ON PLU=ON L39 OR L43

L45 7 SEA ABB=ON PLU=ON L44 AND (1840-2003)/PRY,AY,PY

L46 35 SEA ABB=ON PLU=ON L36 OR L42 OR L45

L47 33 SEA ABB=ON PLU=ON L46 AND (COLOUR OR COLOR) (2A) FILTER?

L48 35 SEA ABB=ON PLU=ON L46 OR L47

L49 5 SEA ABB=ON PLU=ON L48 AND CATALYST?

L50 35 SEA ABB=ON PLU=ON L48 OR L49